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(54) Title: GENES, COMPOSITIONS, KITS, AND METHOD FOR IDENTIFICATION, ASSESSMENT, PREVENTION AND THERAPY OF OVARIAN CANCER

(57) Abstract: The invention relates to compositions, kits, and methods for detecting, characterizing, preventing, and treating human ovarian cancers. A variety of novel markers are provided, wherein changes in the levels of expression of one or more of the markers is correlated with the presence of ovarian cancer.

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COMPOSITIONS, KITS, AND METHODS FOR
IDENTIFICATION, ASSESSMENT, PREVENTION, AND THERAPY OF
OVARIAN CANCER

5 RELATED APPLICATIONS

The present application claims priority to U.S. provisional patent application serial no. 60/191,031 filed on March 21, 2000, U.S. provisional patent application serial no. 60/207,124, filed on May 25, 2000, U.S. provisional patent application serial no. 60/211,940, filed on June 15, 2000, U.S. provisional patent application serial no.
10 60/216,820, filed on July 7, 2000, U.S. provisional patent application serial no. 60/220,661, filed on July 25, 2000, and U.S. provisional patent application serial no. 60/257,672, filed on December 21, 2000, all of which are expressly incorporated by reference.

15 FIELD OF THE INVENTION

The field of the invention is ovarian cancer, including diagnosis, characterization, management, and therapy of ovarian cancer.

BACKGROUND OF THE INVENTION

20 Ovarian cancer is responsible for significant morbidity and mortality in populations around the world. Ovarian cancer is classified, on the basis of clinical and pathological features, in three groups, namely epithelial ovarian cancer (EOC; >90% of ovarian cancer in Western countries), germ cell tumors (*circa* 2-3% of ovarian cancer), and stromal ovarian cancer (*circa* 5% of ovarian cancer; Ozols *et al.*, 1997, *Cancer*
25 *Principles and Practice of Oncology*, 5th ed., DeVita *et al.*, Eds. pp. 1502). Relative to EOC, germ cell tumors and stromal ovarian cancers are more easily detected and treated at an early stage, translating into higher/better survival rates for patients afflicted with these two types of ovarian cancer.

There are numerous types of ovarian tumors, some of which are benign, and
30 others of which are malignant. Treatment (including non-treatment) options and predictions of patient outcome depend on accurate classification of the ovarian cancer. Ovarian cancers are named according to the type of cells from which the cancer is

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derived and whether the ovarian cancer is benign or malignant. Recognized histological tumor types include, for example, serous, mucinous, endometrioid, and clear cell tumors. In addition, ovarian cancers are classified according to recognized grade and stage scales.

- 5 In grade I, the tumor tissue is well differentiated from normal ovarian tissue. In grade II, tumor tissue is moderately well differentiated. In grade III, the tumor tissue is poorly differentiated from normal tissue, and this grade correlates with a less favorable prognosis than grades I and II. Stage I is generally confined within the capsule surrounding one (stage IA) or both (stage IB) ovaries, although in some stage I (*i.e.* stage IC) cancers, malignant cells may be detected in ascites, in peritoneal rinse fluid, or
10 on the surface of the ovaries. Stage II involves extension or metastasis of the tumor from one or both ovaries to other pelvic structures. In stage IIA, the tumor extends or has metastasized to the uterus, the fallopian tubes, or both. Stage IIB involves extension of the tumor to the pelvis. Stage IIC is stage IIA or IIB in which malignant cells may be
15 detected in ascites, in peritoneal rinse fluid, or on the surface of the ovaries. In stage III, the tumor comprises at least one malignant extension to the small bowel or the omentum, has formed extrapelvic peritoneal implants of microscopic (stage IIIA) or macroscopic (< 2 centimeter diameter, stage IIIB; > 2 centimeter diameter, stage IIIC) size, or has metastasized to a retroperitoneal or inguinal lymph node (an alternate
20 indicator of stage IIIC). In stage IV, distant (*i.e.* non-peritoneal) metastases of the tumor can be detected.

- The durations of the various stages of ovarian cancer are not presently known, but are believed to be at least about a year each (Richart *et al.*, 1969, *Am. J. Obstet. Gynecol.* 105:386). Prognosis declines with increasing stage designation. For example,
25 5-year survival rates for patients diagnosed with stage I, II, III, and IV ovarian cancer are 80%, 57%, 25%, and 8%, respectively.

- Despite being the third most prevalent gynecological cancer, ovarian cancer is the leading cause of death among those afflicted with gynecological cancers. The disproportionate mortality of ovarian cancer is attributable to a substantial absence of
30 symptoms among those afflicted with early-stage ovarian cancer and to difficulty diagnosing ovarian cancer at an early stage. Patients afflicted with ovarian cancer most often present with non-specific complaints, such as abnormal vaginal bleeding,

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gastrointestinal symptoms, urinary tract symptoms, lower abdominal pain, and generalized abdominal distension. These patients rarely present with paraneoplastic symptoms or with symptoms which clearly indicate their affliction. Presently, less than about 40% of patients afflicted with ovarian cancer present with stage I or stage II.

- 5 Management of ovarian cancer would be significantly enhanced if the disease could be detected at an earlier stage, when treatments are much more generally efficacious.

Ovarian cancer may be diagnosed, in part, by collecting a routine medical history from a patient and by performing physical examination, x-ray examination, and chemical and hematological studies on the patient. Hematological tests which may be
10 indicative of ovarian cancer in a patient include analyses of serum levels of proteins designated CA125 and DF3 and plasma levels of lysophosphatidic acid (LPA). Palpation of the ovaries and ultrasound techniques (particularly including endovaginal ultrasound and color Doppler flow ultrasound techniques) can aid detection of ovarian tumors and differentiation of ovarian cancer from benign ovarian cysts. However, a
15 definitive diagnosis of ovarian cancer typically requires performing exploratory laparotomy of the patient.

Potential tests for the detection of ovarian cancer (*e.g.*, screening, reflex or monitoring) may be characterized by a number of factors. The "sensitivity" of an assay refers to the probability that the test will yield a positive result in an individual afflicted
20 with ovarian cancer. The "specificity" of an assay refers to the probability that the test will yield a negative result in an individual not afflicted with ovarian cancer. The "positive predictive value" (PPV) of an assay is the ratio of true positive results (*i.e.* positive assay results for patients afflicted with ovarian cancer) to all positive results (*i.e.* positive assay results for patients afflicted with ovarian cancer + positive assay
25 results for patients not afflicted with ovarian cancer). It has been estimated that in order for an assay to be an appropriate population-wide screening tool for ovarian cancer the assay must have a PPV of at least about 10% (Rosenthal *et al.*, 1998, *Sem. Oncol.* 25:315-325). It would thus be desirable for a screening assay for detecting ovarian cancer in patients to have a high sensitivity and a high PPV. Monitoring and reflex tests
30 would also require appropriate specifications.

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Owing to the cost, limited sensitivity, and limited specificity of known methods of detecting ovarian cancer, screening is not presently performed for the general population. In addition, the need to perform laparotomy in order to diagnose ovarian cancer in patients who screen positive for indications of ovarian cancer limits the desirability of population-wide screening, such that a PPV even greater than 10% would be desirable.

Prior use of serum CA125 level as a diagnostic marker for ovarian cancer indicated that this method exhibited insufficient specificity for use as a general screening method. Use of a refined algorithm for interpreting CA125 levels in serial retrospective samples obtained from patients improved the specificity of the method without shifting detection of ovarian cancer to an earlier stage (Skakes, 1995, *Cancer* 76:2004). Screening for LPA to detect gynecological cancers including ovarian cancer exhibited a sensitivity of about 96% and a specificity of about 89%. However, CA125-based screening methods and LPA-based screening methods are hampered by the presence of CA125 and LPA, respectively, in the serum of patients afflicted with conditions other than ovarian cancer. For example, serum CA125 levels are known to be associated with menstruation, pregnancy, gastrointestinal and hepatic conditions such as colitis and cirrhosis, pericarditis, renal disease, and various non-ovarian malignancies. Serum LPA is known, for example, to be affected by the presence of non-ovarian gynecological malignancies. A screening method having a greater specificity for ovarian cancer than the current screening methods for CA125 and LPA could provide a population-wide screening for early stage ovarian cancer.

Presently greater than about 60% of ovarian cancers diagnosed in patients are stage III or stage IV cancers. Treatment at these stages is largely limited to cytoreductive surgery (when feasible) and chemotherapy, both of which aim to slow the spread and development of metastasized tumor. Substantially all late stage ovarian cancer patients currently undergo combination chemotherapy as primary treatment, usually a combination of a platinum compound and a taxane. Median survival for responding patients is about one year. Combination chemotherapy involving agents such as doxorubicin, cyclophosphamide, cisplatin, hexamethylmelamine, paclitaxel, and methotrexate may improve survival rates in these groups, relative to single-agent therapies. Various recently-developed chemotherapeutic agents and treatment regimens

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have also demonstrated usefulness for treatment of advanced ovarian cancer. For example, use of the topoisomerase I inhibitor topotecan, use of amifostine to minimize chemotherapeutic side effects, and use of intraperitoneal chemotherapy for patients having peritoneally implanted tumors have demonstrated at least limited utility.

- 5 Presently, however, the 5-year survival rate for patients afflicted with stage III ovarian cancer is 25%, and the survival rate for patients afflicted with stage IV ovarian cancer is 8%.

In summary, the earlier ovarian cancer is detected, the aggressiveness of therapeutic intervention and the side effects associated with therapeutic intervention are
10 minimized. More importantly, the earlier the cancer is detected, the survival rate and quality of life of ovarian cancer patients is enhanced. Thus, a pressing need exists for methods of detecting ovarian cancer as early as possible. There also exists a need for methods of detecting recurrence of ovarian cancer as well as methods for predicting and monitoring the efficacy of treatment. The present invention satisfies these needs.

15

SUMMARY OF THE INVENTION

The invention relates to novel genes associated with ovarian cancer as well as methods of assessing whether a patient is afflicted with ovarian cancer. This method comprises the step of comparing the level of expression of a marker in a patient sample,
20 wherein the marker is listed in Tables 1-2, and the normal level of expression of the marker in a control, *e.g.*, a sample from a patient without ovarian cancer. A significant difference between the level of expression of the marker in the patient sample and the normal level is an indication that the patient is afflicted with ovarian cancer. Preferably, a protein corresponding to the marker is a secreted protein. Alternatively, the marker
25 can correspond to a protein having an extracellular portion, to one which is normally expressed in ovarian tissue at a detectable level, or both.

In one method, the marker(s) are preferably selected such that the positive predictive value of the method is at least about 10%. Also preferred are embodiments of the method wherein the marker is over- or under-expressed by at least two-fold in at
30 least about 20% of stage I ovarian cancer patients, stage II ovarian cancer patients, stage III ovarian cancer patients, stage IV ovarian cancer patients, grade I ovarian cancer patients, grade II ovarian cancer patients, grade III ovarian cancer patients, epithelial

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ovarian cancer patients, stromal ovarian cancer patients, germ cell ovarian cancer patients, malignant ovarian cancer patients, benign ovarian patients, serous neoplasm ovarian cancer patients, mucinous neoplasm ovarian cancer patients, endometrioid neoplasm ovarian cancer patients and/or clear cell neoplasm ovarian cancer patients.

5 In one embodiment of the methods of the present invention, the patient sample is an ovary-associated body fluid. Such fluids include, for example, blood fluids, lymph, ascitic fluids, gynecological fluids, cystic fluids, urine, and fluids collected by peritoneal rinsing. In another embodiment, the sample comprises cells obtained from the patient. In this embodiment, the cells may be found in a fluid selected from the group consisting
10 of a fluid collected by peritoneal rinsing, a fluid collected by uterine rinsing, a uterine fluid, a uterine exudate, a pleural fluid, and an ovarian exudate. In another embodiment, the patient sample is *in vivo*.

 In accordance with the methods of the present invention, the level of expression of the marker in a sample can be assessed, for example, by detecting the presence in the
15 sample of :

- a protein corresponding to the marker or fragment of the protein (*e.g.* using a reagent, such as an antibody, an antibody derivative, or an antibody fragment, which binds specifically with the protein)
- a transcribed polynucleotide (*e.g.* an mRNA or a cDNA), or fragment
20 thereof, having at least a portion with which the marker is substantially homologous (*e.g.* by contacting a mixture of transcribed polynucleotides obtained from the sample with a substrate having one or more of the markers listed in Tables 1-2 fixed thereto at selected positions)
- a transcribed polynucleotide or fragment thereof, wherein the
25 polynucleotide anneals with the marker under stringent hybridization conditions.
- a metabolite which is produced directly (*i.e.*, catalyzed) or indirectly by a protein corresponding to the marker

 The methods of the present invention are particularly useful for patients with an
30 identified pelvic mass or symptoms associated with ovarian cancer. The methods of the present invention can also be of particular use with patients having an enhanced risk of developing ovarian cancer (*e.g.*, patients having a familial history of ovarian cancer,

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patients identified as having a mutant oncogene, and patients at least about 50 years of age). The methods of the present invention may further be of particular use in monitoring the efficacy of treatment of an ovarian cancer patient (*e.g.* the efficacy of chemotherapy).

5 The methods of the present invention may be performed using a plurality (*e.g.* 2, 3, 5, or 10 or more) of markers. According to a method involving a plurality of markers, the level of expression in the sample of each of a plurality of markers independently selected from the markers listed in Tables 1-2 is compared with the normal level of expression of each of the plurality of markers in samples of the same type obtained from
10 control humans not afflicted with ovarian cancer. The markers of Tables 1-2 may also be used in combination with known ovarian cancer markers in the methods of the present invention.

In a preferred method of assessing whether a patient is afflicted with ovarian cancer (*e.g.*, new detection ("screening"), detection of recurrence, reflex testing), the
15 method comprises comparing:

- a) the level of expression of a marker in a patient sample, wherein at least one marker is selected from the markers of Tables 1-2, and
- b) the normal level of expression of the marker in a control non-ovarian cancer sample.

20 A significant difference between the level of expression of the marker in the patient sample and the normal level is an indication that the patient is afflicted with ovarian cancer.

The methods of the present invention further include a method of assessing the efficacy of a test compound for inhibiting ovarian cancer in a patient. This method
25 comprises comparing:

- a) expression of a marker in a first sample obtained from the patient and maintained in the presence of the test compound, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2, and

30 b) expression of the marker in a second sample obtained from the patient and maintained in the absence of the test compound.

A significant difference between the level of expression of the marker in the first sample, relative to the second sample, is an indication that the test compound is efficacious for inhibiting ovarian cancer in the patient. For example, the first and second samples can be portions of a single sample obtained from the patient or portions of pooled samples obtained from the patient.

The invention further relates to a method of assessing the efficacy of a therapy for inhibiting ovarian cancer in a patient. This method comprises comparing:

- a) expression of a marker in a first sample obtained from the patient prior to providing at least a portion of the therapy to the patient, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2, and
- b) expression of the marker in a second sample obtained from the patient following provision of the portion of the therapy.

A significant difference between the level of expression of the marker in the second sample, relative to the first sample, is an indication that the therapy is efficacious for inhibiting ovarian cancer in the patient.

It will be appreciated that in these methods the "therapy" may be any traditional therapy for treating ovarian cancer including, but not limited to, chemotherapy, radiation therapy and surgical removal of tissue, *e.g.*, an ovarian tumor. Thus, the methods of the invention may be used to evaluate a patient before, during and after thereapy, for example, to evaluate the reduction in tumor burden.

The present invention therefore further comprises a method for monitoring the progression of ovarian cancer in a patient, the method comprising:

- a) detecting in a patient sample at a first time point, the expression of a marker, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2;
- b) repeating step a) at a subsequent time point in time; and
- c) comparing the level of expression detected in steps a) and b), and therefrom monitoring the progression of ovarian cancer in the patient.

The invention also includes a method of selecting a composition for inhibiting ovarian cancer in a patient. This method comprises the steps of:

- a) obtaining a sample comprising cancer cells from the patient;

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- b) separately maintaining aliquots of the sample in the presence of a plurality of test compositions;
- c) comparing expression of a marker listed in Tables 1-2 in each of the aliquots; and
- 5 d) selecting one of the test compositions which alters the level of expression of the marker in the aliquot containing that test composition, relative to other test compositions.

In addition, the invention includes a method of inhibiting ovarian cancer in a patient. This method comprises the steps of:

- 10 a) obtaining a sample comprising cancer cells from the patient;
- b) separately maintaining aliquots of the sample in the presence of a plurality of test compositions;
- c) comparing expression of a marker listed in Tables 1-2 in each of the aliquots; and
- 15 d) administering to the patient at least one of the test compositions which alters the level of expression of the marker in the aliquot containing that test composition, relative to other test compositions.

The invention also includes a kit for assessing whether a patient is afflicted with ovarian cancer. This kit comprises reagents for assessing expression of a marker listed
20 in Tables 1-2.

In another aspect, the invention relates to a kit for assessing the suitability of each of a plurality of compounds for inhibiting an ovarian cancer in a patient. The kit comprises a reagent for assessing expression of a marker listed in Tables 1-2, and may also comprise a plurality of compounds.

25 In another aspect, the invention relates to a kit for assessing the presence of ovarian cancer cells. This kit comprises an antibody, wherein the antibody binds specifically with a protein corresponding to a marker listed in Tables 1-2. The kit may also comprise a plurality of antibodies, wherein the plurality binds specifically with a protein corresponding to a different marker listed in Tables 1-2.

30 The invention also includes a kit for assessing the presence of ovarian cancer cells, wherein the kit comprises a nucleic acid probe. The probe binds specifically with a transcribed polynucleotide corresponding to a marker listed in Tables 1-2. The kit

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may also comprise a plurality of probes, wherein each of the probes binds specifically with a transcribed polynucleotide corresponding to a different marker listed in Tables 1-2.

The invention further relates to a method of making an isolated hybridoma which produces an antibody useful for assessing whether a patient is afflicted with ovarian cancer. The method comprises isolating a protein corresponding to a marker listed in Tables 1-2, immunizing a mammal using the isolated protein, isolating splenocytes from the immunized mammal, fusing the isolated splenocytes with an immortalized cell line to form hybridomas, and screening individual hybridomas for production of an antibody which specifically binds with the protein to isolate the hybridoma. The invention also includes an antibody produced by this method.

The invention further includes a method of assessing the ovarian carcinogenic potential of a test compound. This method comprises the steps of:

- a) maintaining separate aliquots of ovarian cells in the presence and absence of the test compound; and
- b) comparing expression of a marker in each of the aliquots.

The marker is selected from those listed in Tables 1-2. A significantly altered level of expression of the marker in the aliquot maintained in the presence of (or exposed to) the test compound, relative to the aliquot maintained in the absence of the test compound, is an indication that the test compound possesses ovarian carcinogenic potential.

Additionally, the invention includes a kit for assessing the ovarian carcinogenic potential of a test compound. The kit comprises ovarian cells and a reagent for assessing expression of a marker in each of the aliquots. The marker is selected from those listed in Tables 1-2.

The invention further relates to a method of treating a patient afflicted with ovarian cancer or at risk of developing ovarian cancer. This method comprises enhancing expression of a marker listed in Tables 1-2 or providing to cells of the patient a protein corresponding to a marker listed in Tables 1-2, wherein the marker is underexpressed in patients afflicted with ovarian cancer. The protein can be provided to the cells, for example, by providing a vector comprising a polynucleotide encoding the protein to the cells.

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The invention includes another method of treating a patient afflicted with ovarian cancer or at risk of developing ovarian cancer. This method comprises inhibiting expression or overexpression of a marker listed in Tables 1-2 by, *e.g.*, providing to cells of the patient an antisense oligonucleotide complementary to a polynucleotide
5 corresponding to a marker listed in Tables 1-2, wherein the marker is overexpressed in patients afflicted with ovarian cancer.

It will be appreciated that the methods and kits of the present invention may also include known cancer markers including known ovarian cancer markers. It will further be appreciated that the methods and kits may be used to identify cancers other than
10 ovarian cancer.

DETAILED DESCRIPTION OF THE INVENTION

The invention relates to newly discovered genes associated with the cancerous state of ovarian cells. It has been discovered that the level of expression of individual
15 genes, also referred to as markers, and combinations of these genes, correlates with the presence of ovarian cancer in a patient. Methods are provided for detecting the presence of ovarian cancer in a sample, the absence of ovarian cancer in a sample, the stage of an ovarian cancer, and with other characteristics of ovarian cancer that are relevant to prevention, diagnosis, characterization, and therapy of ovarian cancer in a patient.

20

Definitions

As used herein, each of the following terms has the meaning associated with it in this section.

The articles "a" and "an" are used herein to refer to one or to more than one (*i.e.*
25 to at least one) of the grammatical object of the article. By way of example, "an element" means one element or more than one element.

A "marker" is a naturally-occurring polymer corresponding to at least one of the novel nucleic acids listed in Tables 1-2. For example, markers include, without limitation, sense and anti-sense strands of genomic DNA (*i.e.* including any introns
30 occurring therein), RNA generated by transcription of genomic DNA (*i.e.* prior to splicing), RNA generated by splicing of RNA transcribed from genomic DNA, and proteins generated by translation of spliced RNA (*i.e.* including proteins both before and

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after cleavage of normally cleaved regions such as transmembrane signal sequences). As used herein, "marker" may also include a cDNA made by reverse transcription of an RNA generated by transcription of genomic DNA (including spliced RNA).

The term "probe" refers to any molecule which is capable of selectively binding to a specifically intended target molecule, for example a marker of the invention. Probes can be either synthesized by one skilled in the art, or derived from appropriate biological preparations. For purposes of detection of the target molecule, probes may be specifically designed to be labeled, as described herein. Examples of molecules that can be utilized as probes include, but are not limited to, RNA, DNA, proteins, antibodies, and organic monomers.

An "ovary-associated" body fluid is a fluid which, when in the body of a patient, contacts or passes through ovarian cells or into which cells or proteins shed from ovarian cells *e.g.* ovarian epithelium, are capable of passing. Exemplary ovary-associated body fluids include blood fluids, lymph, ascites, gynecological fluids, cystic fluid, urine, and fluids collected by peritoneal rinsing.

The "normal" level of expression of a marker is the level of expression of the marker in ovarian cells of a patient, *e.g.* a human, not afflicted with ovarian cancer.

"Over-expression" and "under-expression" of a marker refer to expression of the marker of a patient at a greater or lesser level, respectively, than normal level of expression of the marker (*e.g.* at least two-fold greater or lesser level).

As used herein, the term "promoter/regulatory sequence" means a nucleic acid sequence which is required for expression of a gene product operably linked to the promoter/regulatory sequence. In some instances, this sequence may be the core promoter sequence and in other instances, this sequence may also include an enhancer sequence and other regulatory elements which are required for expression of the gene product. The promoter/regulatory sequence may, for example, be one which expresses the gene product in a tissue-specific manner.

A "constitutive" promoter is a nucleotide sequence which, when operably linked with a polynucleotide which encodes or specifies a gene product, causes the gene product to be produced in a living human cell under most or all physiological conditions of the cell.

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An "inducible" promoter is a nucleotide sequence which, when operably linked with a polynucleotide which encodes or specifies a gene product, causes the gene product to be produced in a living human cell substantially only when an inducer which corresponds to the promoter is present in the cell.

5 A "tissue-specific" promoter is a nucleotide sequence which, when operably linked with a polynucleotide which encodes or specifies a gene product, causes the gene product to be produced in a living human cell substantially only if the cell is a cell of the tissue type corresponding to the promoter.

10 A "transcribed polynucleotide" is a polynucleotide (*e.g.* an RNA, a cDNA, or an analog of one of an RNA or cDNA) which is complementary to or homologous with all or a portion of a mature RNA made by transcription of a genomic DNA corresponding to a marker of the invention and normal post-transcriptional processing (*e.g.* splicing), if any, of the transcript.

"Complementary" refers to the broad concept of sequence complementarity

15 between regions of two nucleic acid strands or between two regions of the same nucleic acid strand. It is known that an adenine residue of a first nucleic acid region is capable of forming specific hydrogen bonds ("base pairing") with a residue of a second nucleic acid region which is antiparallel to the first region if the residue is thymine or uracil. Similarly, it is known that a cytosine residue of a first nucleic acid strand is capable of

20 base pairing with a residue of a second nucleic acid strand which is antiparallel to the first strand if the residue is guanine. A first region of a nucleic acid is complementary to a second region of the same or a different nucleic acid if, when the two regions are arranged in an antiparallel fashion, at least one nucleotide residue of the first region is capable of base pairing with a residue of the second region. Preferably, the first region

25 comprises a first portion and the second region comprises a second portion, whereby, when the first and second portions are arranged in an antiparallel fashion, at least about 50%, and preferably at least about 75%, at least about 90%, or at least about 95% of the nucleotide residues of the first portion are capable of base pairing with nucleotide residues in the second portion. More preferably, all nucleotide residues of the first

30 portion are capable of base pairing with nucleotide residues in the second portion.

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"Homologous" as used herein, refers to nucleotide sequence similarity between two regions of the same nucleic acid strand or between regions of two different nucleic acid strands. When a nucleotide residue position in both regions is occupied by the same nucleotide residue, then the regions are homologous at that position. A first region is homologous to a second region if at least one nucleotide residue position of each region is occupied by the same residue. Homology between two regions is expressed in terms of the proportion of nucleotide residue positions of the two regions that are occupied by the same nucleotide residue. By way of example, a region having the nucleotide sequence 5'-ATTGCC-3' and a region having the nucleotide sequence 5'-TATGGC-3' share 50% homology. Preferably, the first region comprises a first portion and the second region comprises a second portion, whereby, at least about 50%, and preferably at least about 75%, at least about 90%, or at least about 95% of the nucleotide residue positions of each of the portions are occupied by the same nucleotide residue. More preferably, all nucleotide residue positions of each of the portions are occupied by the same nucleotide residue.

A marker is "fixed" to a substrate if it is covalently or non-covalently associated with the substrate such the substrate can be rinsed with a fluid (*e.g.* standard saline citrate, pH 7.4) without a substantial fraction of the marker dissociating from the substrate.

As used herein, a "naturally-occurring" nucleic acid molecule refers to an RNA or DNA molecule having a nucleotide sequence that occurs in nature (*e.g.* encodes a natural protein).

Expression of a marker in a patient is "significantly" higher or lower than the normal level of expression of a marker if the level of expression of the marker is greater or less, respectively, than the normal level by an amount greater than the standard error of the assay employed to assess expression, and preferably at least twice, and more preferably three, four, five or ten times that amount. Alternately, expression of the marker in the patient can be considered "significantly" higher or lower than the normal level of expression if the level of expression is at least about two, and preferably at least about three, four, or five times, higher or lower, respectively, than the normal level of expression of the marker.

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Ovarian cancer is "inhibited" if at least one symptom of the cancer is alleviated, terminated, slowed, or prevented. As used herein, ovarian cancer is also "inhibited" if recurrence or metastasis of the cancer is reduced, slowed, delayed, or prevented.

A kit is any manufacture (*e.g.* a package or container) comprising at least one reagent, *e.g.* a probe, for specifically detecting a marker of the invention, the manufacture being promoted, distributed, or sold as a unit for performing the methods of the present invention.

Description

10 The present invention is based, in part, on identification of novel markers which are over-expressed in ovarian cancer cells as compared to their expression in normal (*i.e.* non- cancerous) ovarian cells. The markers of the invention correspond to DNA, RNA, and polypeptide molecules which can be detected in one or both of normal and cancerous ovarian cells. The enhanced expression of one or more of these markers in
15 ovarian cells is herein correlated with the cancerous state of the tissue. The invention thus includes compositions, kits, and methods for assessing the cancerous state of ovarian cells (*e.g.* cells obtained from a human, cultured human cells, archived or preserved human cells and *in vivo* cells).

The compositions, kits, and methods of the invention have the following uses,
20 among others:

- 1) assessing whether a patient is afflicted with ovarian cancer;
- 2) assessing the stage of ovarian cancer in a human patient;
- 3) assessing the grade of ovarian cancer in a patient;
- 4) assessing the benign or malignant nature of ovarian cancer in a patient;
- 25 5) assessing the histological type of neoplasm (*e.g.* serous, mucinous, endometroid, or clear cell neoplasm) associated with ovarian cancer in a patient;
- 6) making an isolated hybridoma which produces an antibody useful for assessing whether a patient is afflicted with ovarian cancer;
- 30 7) assessing the presence of ovarian cancer cells;
- 8) assessing the efficacy of one or more test compounds for inhibiting ovarian cancer in a patient;

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- 9) assessing the efficacy of a therapy for inhibiting ovarian cancer in a patient;
- 10) monitoring the progression of ovarian cancer in a patient;
- 11) selecting a composition or therapy for inhibiting ovarian cancer in a patient;
- 12) treating a patient afflicted with ovarian cancer;
- 13) inhibiting ovarian cancer in a patient;
- 14) assessing the ovarian carcinogenic potential of a test compound; and
- 15) inhibiting an ovarian cancer in a patient at risk for developing ovarian cancer.

The invention thus includes a method of assessing whether a patient is afflicted with ovarian cancer. This method comprises comparing the level of expression of a marker in a patient sample and the normal level of expression of the marker in a control, *e.g.*, a non-ovarian cancer sample. A significant difference between the level of expression of the marker in the patient sample and the normal level is an indication that the patient is afflicted with ovarian cancer. The marker is selected from the group consisting of the markers listed in Tables 1-2.

The polynucleotides set forth in Tables 1-2 represent previously unidentified nucleotide sequences. These nucleotide sequences were identified through subtracted library experiments described herein. Also provided by this invention are polynucleotides that correspond to the polynucleotides of Tables 1-2. In one embodiment, these polynucleotides are obtained by identification of a larger fragment or full-length coding sequence of these polynucleotides. Gene delivery vehicles, host cells, compositions and databases (all described herein) containing these polynucleotides are also provided by this invention.

Any marker or combination of markers listed in Tables 1-2, as well as any known markers in combination with the markers set forth in Tables 1-2, may be used in the compositions, kits, and methods of the present invention. In general, it is preferable to use markers for which the difference between the level of expression of the marker in ovarian cancer cells and the level of expression of the same marker in normal ovarian

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cells is as great as possible. Although this difference can be as small as the limit of detection of the method for assessing expression of the marker, it is preferred that the difference be at least greater than the standard error of the assessment method, and preferably a difference of at least 2-, 3-, 4-, 5-, 6-, 7-, 8-, 9-, 10-, 15-, 20-, 25-, 100-, 500-, 1000-fold or greater.

It is recognized that certain markers correspond to proteins which are secreted from ovarian cells (*i.e.* one or both of normal and cancerous cells) to the extracellular space surrounding the cells. These markers are preferably used in certain embodiments of the compositions, kits, and methods of the invention, owing to the fact that the protein corresponding to each of these markers can be detected in an ovary-associated body fluid sample, which may be more easily collected from a human patient than a tissue biopsy sample. In addition, preferred *in vivo* techniques for detection of a protein corresponding to a marker of the invention include introducing into a subject a labeled antibody directed against the protein. For example, the antibody can be labeled with a radioactive marker whose presence and location in a subject can be detected by standard imaging techniques.

It is a simple matter for the skilled artisan to determine whether any particular marker corresponds to a secreted protein. In order to make this determination, the protein corresponding to a marker is expressed in a test cell (*e.g.* a cell of an ovarian cell line), extracellular fluid is collected, and the presence or absence of the protein in the extracellular fluid is assessed (*e.g.* using a labeled antibody which binds specifically with the protein).

The following is an example of a method which can be used to detect secretion of a protein corresponding to a marker of the invention. About 8×10^5 293T cells are incubated at 37°C in wells containing growth medium (Dulbecco's modified Eagle's medium {DMEM} supplemented with 10% fetal bovine serum) under a 5% (v/v) CO₂, 95% air atmosphere to about 60-70% confluence. The cells are then transfected using a standard transfection mixture comprising 2 micrograms of DNA comprising an expression vector encoding the protein and 10 microliters of LipofectAMINE™ (GIBCO/BRL Catalog no. 18342-012) per well. The transfection mixture is maintained for about 5 hours, and then replaced with fresh growth medium and maintained in an air atmosphere. Each well is gently rinsed twice with DMEM which does not contain

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methionine or cysteine (DMEM-MC; ICN Catalog no. 16-424- 54). About 1 milliliter of DMEM-MC and about 50 microcuries of Trans-³⁵STM reagent (ICN Catalog no. 51006) are added to each well. The wells are maintained under the 5% CO₂ atmosphere described above and incubated at 37°C for a selected period. Following incubation, 150
5 microliters of conditioned medium is removed and centrifuged to remove floating cells and debris. The presence of the protein in the supernatant is an indication that the protein is secreted.

Examples of ovary-associated body fluids include blood fluids (*e.g.* whole blood, blood serum, blood having platelets removed therefrom, etc.), lymph, ascitic fluids,
10 gynecological fluids (*e.g.* ovarian, fallopian, and uterine secretions, menses, vaginal douching fluids, fluids used to rinse cervical cell samples, etc.), cystic fluid, urine, and fluids collected by peritoneal rinsing (*e.g.* fluids applied and collected during laparoscopy or fluids instilled into and withdrawn from the peritoneal cavity of a human patient). In these embodiments, the level of expression of the marker can be assessed by
15 assessing the amount (*e.g.* absolute amount or concentration) of the marker in an ovary-associated body fluid obtained from a patient. The fluid can, of course, be subjected to a variety of well-known post-collection preparative and storage techniques (*e.g.* storage, freezing, ultrafiltration, concentration, evaporation, centrifugation, etc.) prior to assessing the amount of the marker in the fluid.

20 Many ovary-associated body fluids (*i.e.* usually excluding urine) can have ovarian cells, *e.g.* ovarian epithelium, therein, particularly when the ovarian cells are cancerous, and, more particularly, when the ovarian cancer is metastasizing. Cell-containing fluids which can contain ovarian cancer cells include, but are not limited to, peritoneal ascites, fluids collected by peritoneal rinsing, fluids collected by uterine
25 rinsing, uterine fluids such as uterine exudate and menses, pleural fluid, and ovarian exudates. Thus, the compositions, kits, and methods of the invention can be used to detect expression of markers corresponding to proteins having at least one portion which is displayed on the surface of cells which express it. Examples of such proteins are indicated in the Tables herein. Although not every protein having at least one cell-
30 surface portion is indicated in the Tables, it is a simple matter for the skilled artisan to determine whether the protein corresponding to any particular marker comprises a cell-surface protein. For example, immunological methods may be used to detect such

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proteins on whole cells, or well known computer-based sequence analysis methods (*e.g.* the SIGNALP program; Nielsen *et al.*, 1997, *Protein Engineering* 10:1-6) may be used to predict the presence of at least one extracellular domain (*i.e.* including both secreted proteins and proteins having at least one cell-surface domain). Expression of a marker
5 corresponding to a protein having at least one portion which is displayed on the surface of a cell which expresses it may be detected without necessarily lysing the cell (*e.g.* using a labeled antibody which binds specifically with a cell-surface domain of the protein).

Expression of a marker of the invention may be assessed by any of a wide
10 variety of well known methods for detecting expression of a transcribed molecule or protein. Non-limiting examples of such methods include immunological methods for detection of secreted, cell-surface, cytoplasmic, or nuclear proteins, protein purification methods, protein function or activity assays, nucleic acid hybridization methods, nucleic acid reverse transcription methods, and nucleic acid amplification methods.

15 In a preferred embodiment, expression of a marker is assessed using an antibody (*e.g.* a radio-labeled, chromophore-labeled, fluorophore-labeled, or enzyme-labeled antibody), an antibody derivative (*e.g.* an antibody conjugated with a substrate or with the protein or ligand of a protein-ligand pair {*e.g.* biotin-streptavidin}), or an antibody fragment (*e.g.* a single-chain antibody, an isolated antibody hypervariable domain, etc.)
20 which binds specifically with a protein corresponding to the marker, such as the protein encoded by the open reading frame corresponding to the marker or such a protein which has undergone all or a portion of its normal post-translational modification.

In another preferred embodiment, expression of a marker is assessed by preparing mRNA/cDNA (*i.e.* a transcribed polynucleotide) from cells in a patient
25 sample, and by hybridizing the mRNA/cDNA with a reference polynucleotide which is a complement of a polynucleotide comprising the marker, and fragments thereof. cDNA can, optionally, be amplified using any of a variety of polymerase chain reaction methods prior to hybridization with the reference polynucleotide; preferably, it is not amplified. Expression of one or more markers can likewise be detected using
30 quantitative PCR to assess the level of expression of the marker(s). Alternatively, any of the many known methods of detecting mutations or variants (*e.g.* single nucleotide

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polymorphisms, deletions, etc.) of a marker of the invention may be used to detect occurrence of a marker in a patient.

In a related embodiment, a mixture of transcribed polynucleotides obtained from the sample is contacted with a substrate having fixed thereto a polynucleotide
5 complementary to or homologous with at least a portion (*e.g.* at least 7, 10, 15, 20, 25, 30, 40, 50, 100, 500, or more nucleotide residues) of a marker of the invention. If polynucleotides complementary to or homologous with are differentially detectable on the substrate (*e.g.* detectable using different chromophores or fluorophores, or fixed to different selected positions), then the levels of expression of a plurality of markers can
10 be assessed simultaneously using a single substrate (*e.g.* a "gene chip" microarray of polynucleotides fixed at selected positions). When a method of assessing marker expression is used which involves hybridization of one nucleic acid with another, it is preferred that the hybridization be performed under stringent hybridization conditions.

Because the compositions, kits, and methods of the invention rely on detection of
15 a difference in expression levels of one or more markers of the invention, it is preferable that the level of expression of the marker is significantly greater than the minimum detection limit of the method used to assess expression in at least one of normal ovarian cells and cancerous ovarian cells.

It is understood that by routine screening of additional patient samples using one
20 or more of the markers of the invention, it will be realized that certain of the markers are over- or under-expressed in cancers of various types, including specific ovarian cancers, as well as other cancers such as breast cancer, cervical cancer, etc. For example, it will be confirmed that some of the markers of the invention are over- or under-expressed in most (*i.e.* 50% or more) or substantially all (*i.e.* 80% or more) of ovarian cancer.
25 Furthermore, it will be confirmed that certain of the markers of the invention are associated with ovarian cancer of various stages (*i.e.* stage I, II, III, and IV ovarian cancers, as well as subclassifications IA, IB, IC, IIA, IIB, IIC, IIIA, IIIB, and IIIC, using the FIGO Stage Grouping system for primary carcinoma of the ovary; 1987, *Am. J. Obstet. Gynecol.* 156:236), of various histologic subtypes (*e.g.* serous, mucinous,
30 endometrioid, and clear cell subtypes, as well as subclassifications and alternate classifications adenocarcinoma, papillary adenocarcinoma, papillary cystadenocarcinoma, surface papillary carcinoma, malignant adenofibroma,

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cystadenofibroma, adenocarcinoma, cystadenocarcinoma, adenoacanthoma, endometrioid stromal sarcoma, mesodermal (Müllerian) mixed tumor, mesonephroid tumor, malignant carcinoma, Brenner tumor, mixed epithelial tumor, and undifferentiated carcinoma, using the WHO/FIGO system for classification of malignant ovarian tumors; Scully, *Atlas of Tumor Pathology*, 3d series, Washington DC), and various grades (*i.e.* grade I {well differentiated} , grade II {moderately well differentiated}, and grade III {poorly differentiated from surrounding normal tissue}). In addition, as a greater number of patient samples are assessed for expression of the markers of the invention and the outcomes of the individual patients from whom the samples were obtained are correlated, it will also be confirmed that altered expression of certain of the markers of the invention are strongly correlated with malignant cancers and that altered expression of other markers of the invention are strongly correlated with benign tumors. The compositions, kits, and methods of the invention are thus useful for characterizing one or more of the stage, grade, histological type, and benign/malignant nature of ovarian cancer in patients. In addition, these compositions, kits, and methods can be used to detect and differentiate epithelial, stromal, and germ cell ovarian cancers.

When the compositions, kits, and methods of the invention are used for characterizing one or more of the stage, grade, histological type, and benign/malignant nature of ovarian cancer in a patient, it is preferred that the marker or panel of markers of the invention is selected such that a positive result is obtained in at least about 20%, and preferably at least about 40%, 60%, or 80%, and more preferably in substantially all patients afflicted with an ovarian cancer of the corresponding stage, grade, histological type, or benign/malignant nature. Preferably, the marker or panel of markers of the invention is selected such that a PPV of greater than about 10% is obtained for the general population (more preferably coupled with an assay specificity greater than 99.5%).

When a plurality of markers of the invention are used in the compositions, kits, and methods of the invention, the level of expression of each marker in a patient sample can be compared with the normal level of expression of each of the plurality of markers in non-cancerous samples of the same type, either in a single reaction mixture (*i.e.* using reagents, such as different fluorescent probes, for each marker) or in individual reaction mixtures corresponding to one or more of the markers. In one embodiment, a

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significantly enhanced level of expression of more than one of the plurality of markers in the sample, relative to the corresponding normal levels, is an indication that the patient is afflicted with ovarian cancer. In another embodiment, a significantly lower level of expression in the sample of each of the plurality of markers, relative to the corresponding normal levels, is an indication that the patient is afflicted with ovarian cancer. In yet another embodiment, a significantly enhanced level of expression of one or more marks and a significantly lower level of expression of one or more markers in a sample relative to the corresponding normal levels, is an indication that the patient is afflicted with ovarian cancer. When a plurality of markers is used, it is preferred that 2, 3, 4, 5, 8, 10, 12, 15, 20, 30, or 50 or more individual markers be used, wherein fewer markers are preferred.

In order to maximize the sensitivity of the compositions, kits, and methods of the invention (*i.e.* by interference attributable to cells of non-ovarian origin in a patient sample), it is preferable that the marker of the invention used therein be a marker which has a restricted tissue distribution, *e.g.*, normally not expressed in a non-epithelial tissue, and more preferably a marker which is normally not expressed in a non-ovarian tissue.

Only a small number of markers are known to be associated with ovarian cancers (*e.g.* *AKT2*, *Ki-RAS*, *ERBB2*, *c-MYC*, *RBI*, and *TP53*; Lynch, *supra*). These markers are not, of course, included among the markers of the invention, although they may be used together with one or more markers of the invention in a panel of markers, for example. It is well known that certain types of genes, such as oncogenes, tumor suppressor genes, growth factor-like genes, protease-like genes, and protein kinase-like genes are often involved with development of cancers of various types. Thus, among the markers of the invention, use of those which correspond to proteins which resemble known proteins encoded by known oncogenes and tumor suppressor genes, and those which correspond to proteins which resemble growth factors, proteases, and protein kinases are preferred.

Known oncogenes and tumor suppressor genes include, for example, *abl*, *abr*, *akt2*, *apc*, *bcl2 α* , *bcl2 β* , *bcl3*, *bcr*, *brca1*, *brca2*, *cbl*, *ccnd1*, *cdc42*, *cdk4*, *crk-II*, *csf1r/fms*, *dbl*, *dcc*, *dpc4/smad4*, *e-cad*, *e2f1/rbap*, *egfr/erbB-1*, *elk1*, *elk3*, *eph*, *erg*, *ets1*, *ets2*, *fer*, *fgr/src2*, *fli1/ergB2*, *fos*, *fps/fes*, *fra1*, *fra2*, *fyn*, *hck*, *hek*, *her2/erbB-2/neu*, *her3/erbB-3*, *her4/erbB-4*, *hras1*, *hst2*, *hstf1*, *igfbp2*, *ink4a*, *ink4b*, *int2/fgf3*, *jun*, *junb*, *jund*, *kip2*, *kit*, *kras2a*, *kras2b*, *lck*, *lyn*, *mas*, *max*, *mcc*, *mdm2*, *met*, *mlh1*, *mmp10*, *mos*,

- msh2, msh3, msh6, myb, myba, mybb, myc, mycl1, mycn, nfl, nf2, nme2, nras, p53, pdgfb, phb, pim1, pms1, pms2, ptc, pten, raf1, rap1a, rbl, rel, ret, ros1, ski, src1, tall, tgfb2, tgfb3, tgfb3, thra1, thrb, tiam1, timp3, tjp1, tp53, trk, vav, vhl, vil2, waf1, wnt1, wnt2, wt1, and yes1* (Hesketh, 1997, In: *The Oncogene and Tumour Suppressor Gene Facts Book*, 2nd Ed., Academic Press; Fishel *et al.*, 1994, *Science* 266:1403-1405).

- Known growth factors include platelet-derived growth factor alpha, platelet-derived growth factor beta (simian sarcoma viral {v-sis} oncogene homolog), thrombopoietin (myeloproliferative leukemia virus oncogene ligand, megakaryocyte growth and development factor), erythropoietin, B cell growth factor, macrophage stimulating factor 1 (hepatocyte growth factor-like protein), hepatocyte growth factor (hepatopietin A), insulin-like growth factor 1 (somatomedia C), hepatoma-derived growth factor, amphiregulin (schwannoma-derived growth factor), bone morphogenetic proteins 1, 2, 3, 3 beta, and 4, bone morphogenetic protein 7 (osteogenic protein 1), bone morphogenetic protein 8 (osteogenic protein 2), connective tissue growth factor, connective tissue activation peptide 3, epidermal growth factor (EGF), teratocarcinoma-derived growth factor 1, endothelin, endothelin 2, endothelin 3, stromal cell-derived factor 1, vascular endothelial growth factor (VEGF), VEGF-B, VEGF-C, placental growth factor (vascular endothelial growth factor-related protein), transforming growth factor alpha, transforming growth factor beta 1 and its precursors, transforming growth factor beta 2 and its precursors, fibroblast growth factor 1 (acidic), fibroblast growth factor 2 (basic), fibroblast growth factor 5 and its precursors, fibroblast growth factor 6 and its precursors, fibroblast growth factor 7 (keratinocyte growth factor), fibroblast growth factor 8 (androgen-induced), fibroblast growth factor 9 (glia-activating factor), pleiotrophin (heparin binding growth factor 8, neurite growth-promoting factor 1), brain-derived neurotrophic factor, and recombinant glial growth factor 2.

- Known proteases include interleukin-1 beta convertase and its precursors, Mch6 and its precursors, Mch2 isoform alpha, Mch4, Cpp32 isoform alpha, Lice2 gamma cysteine protease, Ich-1S, Ich-1L, Ich-2 and its precursors, TY protease, matrix metalloproteinase 1 (interstitial collagenase), matrix metalloproteinase 2 (gelatinase A, 72kD gelatinase, 72kD type IV collagenase), matrix metalloproteinase 7 (matrilysin), matrix metalloproteinase 8 (neutrophil collagenase), matrix metalloproteinase 12 (macrophage elastase), matrix metalloproteinase 13 (collagenase 3), metalloproteinase 1,

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cysteine-rich metalloprotease (disintegrin) and its precursors, subtilisin-like protease Pc8 and its precursors, chymotrypsin, snake venom-like protease, cathepsin I, cathepsin D (lysosomal aspartyl protease), stromelysin, aminopeptidase N, plasminogen, tissue plasminogen activator, plasminogen activator inhibitor type II, and urokinase-type plasminogen activator.

Known protein kinases include DAP kinase, serine/threonine protein kinases NIK, PK428, Krs-2, SAK, and EMK, interferon-inducible double stranded RNA dependent protein kinase, FAST kinase, AIM1, IPL1-like midbody-associated protein kinase-1, NIMA-like protein kinase 1 (NLK1), the cyclin-dependent kinases (cdk1-10), checkpoint kinase Chk1, Nek3 protein kinase, BMK1 beta kinase, Clk1, Clk2, Clk3, extracellular signal-regulated kinases 1, 3, and 6, cdc28 protein kinase 1, cdc28 protein kinase 2, pLK, Myt1, c-Jun N-terminal kinase 2, Cam kinase 1, the MAP kinases, insulin-stimulated protein kinase 1, beta-adrenergic receptor kinase 2, ribosomal protein S6 kinase, kinase suppressor of ras-1 (KSR1), putative serine/threonine protein kinase Prk, PkB kinase, cAMP-dependent protein kinase, cGMP-dependent protein kinase, type II cGMP-dependent protein kinase, protein kinases Dyrk2, Dyrk3, and Dyrk4, Rho-associated coiled-coil containing protein kinase p160ROCK, protein tyrosine kinase t-Ror1, Ste20-related kinases, cell adhesion kinase beta, protein kinase 3, stress-activated protein kinase 4, protein kinase Zpk, serine kinase hPAK65, dual specificity mitogen-activated protein kinases 1 and 2, casein kinase I gamma 2, p21-activated protein kinase Pak1, lipid-activated protein kinase PRK2, focal adhesion kinase, dual-specificity tyrosine-phosphorylation regulated kinase, myosin light chain kinase, serine kinases SRPK2, TESK1, and VRK2, B lymphocyte serine/threonine protein kinase, stress-activated protein kinases JNK1 and JNK2, phosphorylase kinase, protein tyrosine kinase Tec, Jak2 kinase, protein kinase Ndr, MEK kinase 3, SHB adaptor protein (a Src homology 2 protein), agammaglobulinaemia protein-tyrosine kinase (Atk), protein kinase ATR, guanylate kinase 1, thrombopoietin receptor and its precursors, DAG kinase epsilon, and kinases encoded by oncogenes or viral oncogenes such as v-fgr (Gardner-Rasheed), v-abl (Abelson murine leukemia viral oncogene homolog 1), v-arg (Abelson murine leukemia viral oncogene homolog, Abelson-related gene), v-fes and v-fps (feline sarcoma viral oncogene and Fujinami avian sarcoma viral oncogene homologs), proto-oncogene *c-cot*, oncogene *pim-1*, and oncogene *mas1*.

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It is recognized that the compositions, kits, and methods of the invention will be of particular utility to patients having an enhanced risk of developing ovarian cancer and their medical advisors. Patients recognized as having an enhanced risk of developing ovarian cancer include, for example, patients having a familial history of ovarian cancer, patients identified as having a mutant oncogene (*i.e.* at least one allele), and patients of advancing age (*i.e.* women older than about 50 or 60 years).

The level of expression of a marker in normal (*i.e.* non-cancerous) human ovarian tissue can be assessed in a variety of ways. In one embodiment, this normal level of expression is assessed by assessing the level of expression of the marker in a portion of ovarian cells which appears to be non-cancerous and by comparing this normal level of expression with the level of expression in a portion of the ovarian cells which is suspected of being cancerous. For example, when laparoscopy or other medical procedure, reveals the presence of a lump on one portion of a patient's ovary, but not on another portion of the same ovary or on the other ovary, the normal level of expression of a marker may be assessed using one or both of the non-affected ovary and a non-affected portion of the affected ovary, and this normal level of expression may be compared with the level of expression of the same marker in an affected portion (*i.e.* the lump) of the affected ovary. Alternately, and particularly as further information becomes available as a result of routine performance of the methods described herein, population-average values for normal expression of the markers of the invention may be used. In other embodiments, the 'normal' level of expression of a marker may be determined by assessing expression of the marker in a patient sample obtained from a non-cancer-afflicted patient, from a patient sample obtained from a patient before the suspected onset of ovarian cancer in the patient, from archived patient samples, and the like.

The invention includes compositions, kits, and methods for assessing the presence of ovarian cancer cells in a sample (*e.g.* an archived tissue sample or a sample obtained from a patient). These compositions, kits, and methods are substantially the same as those described above, except that, where necessary, the compositions, kits, and methods are adapted for use with samples other than patient samples. For example, when the sample to be used is a parafinized, archived human tissue sample, it can be necessary to adjust the ratio of compounds in the compositions of the invention, in the

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kits of the invention, or the methods used to assess levels of marker expression in the sample. Such methods are well known in the art and within the skill of the ordinary artisan.

The invention includes a kit for assessing the presence of ovarian cancer cells
5 (e.g. in a sample such as a patient sample). The kit comprises a plurality of reagents, each of which is capable of binding specifically with a nucleic acid or polypeptide corresponding to a marker of the invention. Suitable reagents for binding with a polypeptide corresponding to a marker of the invention include antibodies, antibody derivatives, antibody fragments, and the like. Suitable reagents for binding with a
10 nucleic acid (e.g. a genomic DNA, an mRNA, a spliced mRNA, a cDNA, or the like) include complementary nucleic acids. For example, the nucleic acid reagents may include oligonucleotides (labeled or non-labeled) fixed to a substrate, labeled oligonucleotides not bound with a substrate, pairs of PCR primers, molecular beacon probes, and the like.

15 The kit of the invention may optionally comprise additional components useful for performing the methods of the invention. By way of example, the kit may comprise fluids (e.g. SSC buffer) suitable for annealing complementary nucleic acids or for binding an antibody with a protein with which it specifically binds, one or more sample compartments, an instructional material which describes performance of a method of the
20 invention, a sample of normal ovarian cells, a sample of ovarian cancer cells, and the like.

The invention also includes a method of making an isolated hybridoma which produces an antibody useful for assessing whether patient is afflicted with an ovarian cancer. In this method, a protein corresponding to a marker of the invention is isolated
25 (e.g. by purification from a cell in which it is expressed or by transcription and translation of a nucleic acid encoding the protein *in vivo* or *in vitro* using known methods). A vertebrate, preferably a mammal such as a mouse, rat, rabbit, or sheep, is immunized using the isolated protein. The vertebrate may optionally (and preferably) be immunized at least one additional time with the isolated protein, so that the vertebrate
30 exhibits a robust immune response to the protein. Splenocytes are isolated from the immunized vertebrate and fused with an immortalized cell line to form hybridomas, using any of a variety of methods well known in the art. Hybridomas formed in this

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manner are then screened using standard methods to identify one or more hybridomas which produce an antibody which specifically binds with the protein. The invention also includes hybridomas made by this method and antibodies made using such hybridomas.

5 The invention also includes a method of assessing the efficacy of a test compound for inhibiting ovarian cancer cells. As described above, differences in the level of expression of the markers of the invention correlate with the cancerous state of ovarian cells. Although it is recognized that changes in the levels of expression of certain of the markers of the invention likely result from the cancerous state of ovarian
10 cells, it is likewise recognized that changes in the levels of expression of other of the markers of the invention induce, maintain, and promote the cancerous state of those cells. Thus, compounds which inhibit an ovarian cancer in a patient will cause the level of expression of one or more of the markers of the invention to change to a level nearer the normal level of expression for that marker (*i.e.* the level of expression for the marker
15 in non-cancerous ovarian cells).

This method thus comprises comparing expression of a marker in a first ovarian cell sample and maintained in the presence of the test compound and expression of the marker in a second ovarian cell sample and maintained in the absence of the test compound. A significant alteration in the level of expression of a marker listed in
20 Tables 1-2 is an indication that the test compound inhibits ovarian cancer. The ovarian cell samples may, for example, be aliquots of a single sample of normal ovarian cells obtained from a patient, pooled samples of normal ovarian cells obtained from a patient, cells of a normal ovarian cell line, aliquots of a single sample of ovarian cancer cells obtained from a patient, pooled samples of ovarian cancer cells obtained from a patient,
25 cells of an ovarian cancer cell line, or the like. In one embodiment, the samples are ovarian cancer cells obtained from a patient and a plurality of compounds known to be effective for inhibiting various ovarian cancers are tested in order to identify the compound which is likely to best inhibit the ovarian cancer in the patient.

This method may likewise be used to assess the efficacy of a therapy for
30 inhibiting ovarian cancer in a patient. In this method, the level of expression of one or more markers of the invention in a pair of samples (one subjected to the therapy, the other not subjected to the therapy) is assessed. As with the method of assessing the

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efficacy of test compounds, if the therapy induces a significant alteration in the level of expression of a marker listed in Tables 1-2 then the therapy is efficacious for inhibiting ovarian cancer. As above, if samples from a selected patient are used in this method, then alternative therapies can be assessed *in vitro* in order to select a therapy most likely
5 to be efficacious for inhibiting ovarian cancer in the patient.

As described herein, ovarian cancer in patients is associated with an alteration in the level of expression of one or more markers listed in Tables 1-2. While, as discussed above, some of these changes in expression level result from occurrence of the ovarian cancer, others of these changes induce, maintain, and promote the cancerous
10 state of ovarian cancer cells. Thus, ovarian cancer characterized by an increase in the level of expression of one or more markers listed in either or both of Tables 1-2 can be inhibited by inhibiting expression of those markers.

Expression of a marker listed in Tables 1-2 can be inhibited in a number of ways generally known in the art. For example, an antisense oligonucleotide can be provided
15 to the ovarian cancer cells in order to inhibit transcription, translation, or both, of the marker(s). Alternately, a polynucleotide encoding an antibody, an antibody derivative, or an antibody fragment, and operably linked with an appropriate promoter/regulator region, can be provided to the cell in order to generate intracellular antibodies which will inhibit the function or activity of the protein corresponding to the marker(s). Using
20 the methods described herein, a variety of molecules, particularly including molecules sufficiently small that they are able to cross the cell membrane, can be screened in order to identify molecules which inhibit expression of the marker(s). The compound so identified can be provided to the patient in order to inhibit expression of the marker(s) in the ovarian cancer cells of the patient.

25 Expression of a marker listed in Tables 1-2 can be enhanced in a number of ways generally known in the art. For example, a polynucleotide encoding the marker and operably linked with an appropriate promoter/regulator region can be provided to ovarian cancer cells of the patient in order to induce enhanced expression of the protein (and mRNA) corresponding to the marker therein. Alternatively, if the protein is
30 capable of crossing the cell membrane, inserting itself in the cell membrane, or is normally a secreted protein, then expression of the protein can be enhanced by providing

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the protein (*e.g.* directly or by way of the bloodstream or another ovary-associated fluid) to ovarian cancer cells in the patient.

As described above, the cancerous state of human ovarian cells is correlated with changes in the levels of expression of the markers of the invention. The invention includes a method for assessing the human ovarian cell carcinogenic potential of a test compound. This method comprises maintaining separate aliquots of human ovarian cells in the presence and absence of the test compound. Expression of a marker of the invention in each of the aliquots is compared. A significant alteration in the level of expression of a marker listed in Tables 1-2 in the aliquot maintained in the presence of the test compound (relative to the aliquot maintained in the absence of the test compound) is an indication that the test compound possesses human ovarian cell carcinogenic potential. The relative carcinogenic potentials of various test compounds can be assessed by comparing the degree of enhancement or inhibition of the level of expression of the relevant markers, by comparing the number of markers for which the level of expression is enhanced or inhibited, or by comparing both.

Various aspects of the invention are described in further detail in the following subsections.

I. Isolated Nucleic Acid Molecules

One aspect of the invention pertains to novel isolated nucleic acid molecules that correspond to a marker of the invention, including nucleic acids which encode a polypeptide corresponding to a marker of the invention or a portion of such a polypeptide. Isolated nucleic acids of the invention also include nucleic acid molecules sufficient for use as hybridization probes to identify nucleic acid molecules that correspond to a marker of the invention, including nucleic acids which encode a polypeptide corresponding to a marker of the invention, and fragments of such nucleic acid molecules, *e.g.*, those suitable for use as PCR primers for the amplification or mutation of nucleic acid molecules. As used herein, the term "nucleic acid molecule" is intended to include DNA molecules (*e.g.*, cDNA or genomic DNA) and RNA molecules (*e.g.*, mRNA) and analogs of the DNA or RNA generated using nucleotide analogs. The nucleic acid molecule can be single-stranded or double-stranded, but preferably is double-stranded DNA.

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An "isolated" nucleic acid molecule is one which is separated from other nucleic acid molecules which are present in the natural source of the nucleic acid molecule. Preferably, an "isolated" nucleic acid molecule is free of sequences (preferably protein-encoding sequences) which naturally flank the nucleic acid (*i.e.*, sequences located at the 5' and 3' ends of the nucleic acid) in the genomic DNA of the organism from which the nucleic acid is derived. For example, in various embodiments, the isolated nucleic acid molecule can contain less than about 5 kB, 4 kB, 3 kB, 2 kB, 1 kB, 0.5 kB or 0.1 kB of nucleotide sequences which naturally flank the nucleic acid molecule in genomic DNA of the cell from which the nucleic acid is derived. Moreover, an "isolated" nucleic acid molecule, such as a cDNA molecule, can be substantially free of other cellular material, or culture medium when produced by recombinant techniques, or substantially free of chemical precursors or other chemicals when chemically synthesized.

A nucleic acid molecule of the present invention can be isolated using standard molecular biology techniques and the sequence information in the database records described herein. Using all or a portion of such nucleic acid sequences, nucleic acid molecules of the invention can be isolated using standard hybridization and cloning techniques (*e.g.*, as described in Sambrook *et al.*, ed., *Molecular Cloning: A Laboratory Manual*, 2nd ed., Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, 1989).

A nucleic acid molecule of the invention can be amplified using cDNA, mRNA, or genomic DNA as a template and appropriate oligonucleotide primers according to standard PCR amplification techniques. The nucleic acid so amplified can be cloned into an appropriate vector and characterized by DNA sequence analysis. Furthermore, oligonucleotides corresponding to all or a portion of a nucleic acid molecule of the invention can be prepared by standard synthetic techniques, *e.g.*, using an automated DNA synthesizer.

In another preferred embodiment, an isolated nucleic acid molecule of the invention comprises a nucleic acid molecule which has a nucleotide sequence complementary to the nucleotide sequence of a nucleic acid corresponding to a marker of the invention or to the nucleotide sequence of a nucleic acid encoding a protein which corresponds to a marker of the invention. A nucleic acid molecule which is complementary to a given nucleotide sequence is one which is sufficiently

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complementary to the given nucleotide sequence that it can hybridize to the given nucleotide sequence thereby forming a stable duplex.

Moreover, a nucleic acid molecule of the invention can comprise only a portion of a nucleic acid sequence, wherein the full length nucleic acid sequence comprises a marker of the invention or which encodes a polypeptide corresponding to a marker of the invention. Such nucleic acids can be used, for example, as a probe or primer. The probe/primer typically is used as one or more substantially purified oligonucleotides. The oligonucleotide typically comprises a region of nucleotide sequence that hybridizes under stringent conditions to at least about 7, preferably about 15, more preferably about 25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, or 400 or more consecutive nucleotides of a nucleic acid of the invention.

Probes based on the sequence of a nucleic acid molecule of the invention can be used to detect transcripts or genomic sequences corresponding to one or more markers of the invention. The probe comprises a label group attached thereto, *e.g.*, a radioisotope, a fluorescent compound, an enzyme, or an enzyme co-factor. Such probes can be used as part of a diagnostic test kit for identifying cells or tissues which mis-express the protein, such as by measuring levels of a nucleic acid molecule encoding the protein in a sample of cells from a subject, *e.g.*, detecting mRNA levels or determining whether a gene encoding the protein has been mutated or deleted.

The invention further encompasses nucleic acid molecules that differ, due to degeneracy of the genetic code, from the nucleotide sequence of nucleic acids encoding a protein which corresponds to a marker of the invention, and thus encode the same protein.

It will be appreciated by those skilled in the art that DNA sequence polymorphisms that lead to changes in the amino acid sequence can exist within a population (*e.g.*, the human population). Such genetic polymorphisms can exist among individuals within a population due to natural allelic variation. An allele is one of a group of genes which occur alternatively at a given genetic locus. In addition, it will be appreciated that DNA polymorphisms that affect RNA expression levels can also exist that may affect the overall expression level of that gene (*e.g.*, by affecting regulation or degradation).

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As used herein, the phrase "allelic variant" refers to a nucleotide sequence which occurs at a given locus or to a polypeptide encoded by the nucleotide sequence.

As used herein, the terms "gene" and "recombinant gene" refer to nucleic acid molecules comprising an open reading frame encoding a polypeptide corresponding to a marker of the invention. Such natural allelic variations can typically result in 1-5% variance in the nucleotide sequence of a given gene. Alternative alleles can be identified by sequencing the gene of interest in a number of different individuals. This can be readily carried out by using hybridization probes to identify the same genetic locus in a variety of individuals. Any and all such nucleotide variations and resulting amino acid polymorphisms or variations that are the result of natural allelic variation and that do not alter the functional activity are intended to be within the scope of the invention.

In another embodiment, an isolated nucleic acid molecule of the invention is at least 7, 15, 20, 25, 30, 40, 60, 80, 100, 150, 200, 250, 300, 350, 400, 450, 550, 650, 700, 800, 900, 1000, 1200, 1400, 1600, 1800, 2000, 2200, 2400, 2600, 2800, 3000, 3500, 4000, 4500, or more nucleotides in length and hybridizes under stringent conditions to a nucleic acid corresponding to a marker of the invention or to a nucleic acid encoding a protein corresponding to a marker of the invention. As used herein, the term "hybridizes under stringent conditions" is intended to describe conditions for hybridization and washing under which nucleotide sequences at least 75% (80%, 85%, preferably 90%) identical to each other typically remain hybridized to each other. Such stringent conditions are known to those skilled in the art and can be found in sections 6.3.1-6.3.6 of *Current Protocols in Molecular Biology*, John Wiley & Sons, N.Y. (1989). A preferred, non-limiting example of stringent hybridization conditions for annealing two single-stranded DNA each of which is at least about 100 bases in length and/or for annealing a single-stranded DNA and a single-stranded RNA each of which is at least about 100 bases in length, are hybridization in 6X sodium chloride/sodium citrate (SSC) at about 45°C, followed by one or more washes in 0.2X SSC, 0.1% SDS at 50-65°C. Further preferred hybridization conditions are taught in Lockhart, *et al.*, *Nature Biotechnology*, Volume 14, 1996 August:1675-1680; Breslauer, *et al.*, *Proc. Natl. Acad. Sci. USA*, Volume 83, 1986 June: 3746-3750; Van Ness, *et al.*, *Nucleic Acids Research*, Volume 19, No. 19, 1991 September: 5143-5151; McGraw, *et al.*, *BioTechniques*,

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Volume 8, No. 6 1990: 674-678; and Milner, *et al.*, Nature Biotechnology, Volume 15, 1997 June: 537-541, all expressly incorporated by reference.

In addition to naturally-occurring allelic variants of a nucleic acid molecule of the invention that can exist in the population, the skilled artisan will further appreciate
5 that sequence changes can be introduced by mutation thereby leading to changes in the amino acid sequence of the encoded protein, without altering the biological activity of the protein encoded thereby. For example, one can make nucleotide substitutions leading to amino acid substitutions at "non-essential" amino acid residues. A "non-essential" amino acid residue is a residue that can be altered from the wild-type
10 sequence without altering the biological activity, whereas an "essential" amino acid residue is required for biological activity. For example, amino acid residues that are not conserved or only semi-conserved among homologs of various species may be non-essential for activity and thus would be likely targets for alteration. Alternatively, amino acid residues that are conserved among the homologs of various species (*e.g.*, murine
15 and human) may be essential for activity and thus would not be likely targets for alteration.

Accordingly, another aspect of the invention pertains to nucleic acid molecules encoding a polypeptide of the invention that contain changes in amino acid residues that are not essential for activity. Such polypeptides differ in amino acid sequence from the
20 naturally-occurring proteins which correspond to the markers of the invention, yet retain biological activity. In one embodiment, such a protein has an amino acid sequence that is at least about 40% identical, 50%, 60%, 70%, 80%, 90%, 95%, or 98% identical to the amino acid sequence of one of the proteins which correspond to the markers of the invention.

25 An isolated nucleic acid molecule encoding a variant protein can be created by introducing one or more nucleotide substitutions, additions or deletions into the nucleotide sequence of nucleic acids of the invention, such that one or more amino acid residue substitutions, additions, or deletions are introduced into the encoded protein. Mutations can be introduced by standard techniques, such as site-directed mutagenesis
30 and PCR-mediated mutagenesis. Preferably, conservative amino acid substitutions are made at one or more predicted non-essential amino acid residues. A "conservative amino acid substitution" is one in which the amino acid residue is replaced with an

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amino acid residue having a similar side chain. Families of amino acid residues having similar side chains have been defined in the art. These families include amino acids with basic side chains (*e.g.*, lysine, arginine, histidine), acidic side chains (*e.g.*, aspartic acid, glutamic acid), uncharged polar side chains (*e.g.*, glycine, asparagine, glutamine, serine, threonine, tyrosine, cysteine), non-polar side chains (*e.g.*, alanine, valine, leucine, isoleucine, proline, phenylalanine, methionine, tryptophan), beta-branched side chains (*e.g.*, threonine, valine, isoleucine) and aromatic side chains (*e.g.*, tyrosine, phenylalanine, tryptophan, histidine). Alternatively, mutations can be introduced randomly along all or part of the coding sequence, such as by saturation mutagenesis, and the resultant mutants can be screened for biological activity to identify mutants that retain activity. Following mutagenesis, the encoded protein can be expressed recombinantly and the activity of the protein can be determined.

The present invention encompasses antisense nucleic acid molecules, *i.e.*, molecules which are complementary to a sense nucleic acid of the invention, *e.g.*, complementary to the coding strand of a double-stranded cDNA molecule corresponding to a marker of the invention or complementary to an mRNA sequence corresponding to a marker of the invention. Accordingly, an antisense nucleic acid of the invention can hydrogen bond to (*i.e.* anneal with) a sense nucleic acid of the invention. The antisense nucleic acid can be complementary to an entire coding strand, or to only a portion thereof, *e.g.*, all or part of the protein coding region (or open reading frame). An antisense nucleic acid molecule can also be antisense to all or part of a non-coding region of the coding strand of a nucleotide sequence encoding a polypeptide of the invention. The non-coding regions ("5' and 3' untranslated regions") are the 5' and 3' sequences which flank the coding region and are not translated into amino acids.

An antisense oligonucleotide can be, for example, about 5, 10, 15, 20, 25, 30, 35, 40, 45, or 50 or more nucleotides in length. An antisense nucleic acid of the invention can be constructed using chemical synthesis and enzymatic ligation reactions using procedures known in the art. For example, an antisense nucleic acid (*e.g.*, an antisense oligonucleotide) can be chemically synthesized using naturally occurring nucleotides or variously modified nucleotides designed to increase the biological stability of the molecules or to increase the physical stability of the duplex formed between the antisense and sense nucleic acids, *e.g.*, phosphorothioate derivatives and acridine

substituted nucleotides can be used. Examples of modified nucleotides which can be used to generate the antisense nucleic acid include 5-fluorouracil, 5-bromouracil, 5-chlorouracil, 5-iodouracil, hypoxanthine, xanthine, 4-acetylcytosine, 5-(carboxyhydroxymethyl) uracil, 5-carboxymethylaminomethyl-2-thiouridine, 5-carboxymethylaminomethyluracil, dihydrouracil, beta-D-galactosylqueosine, inosine, N6-isopentenyladenine, 1-methylguanine, 1-methylinosine, 2,2-dimethylguanine, 2-methyladenine, 2-methylguanine, 3-methylcytosine, 5-methylcytosine, N6-adenine, 7-methylguanine, 5-methylaminomethyluracil, 5-methoxyaminomethyl-2-thiouracil, beta-D-mannosylqueosine, 5'-methoxycarboxymethyluracil, 5-methoxyuracil, 2-methylthio-N6-isopentenyladenine, uracil-5-oxyacetic acid (v), wybutoxosine, pseudouracil, queosine, 2-thiocytosine, 5-methyl-2-thiouracil, 2-thiouracil, 4-thiouracil, 5-methyluracil, uracil-5-oxyacetic acid methylester, uracil-5-oxyacetic acid (v), 5-methyl-2-thiouracil, 3-(3-amino-3-N-2-carboxypropyl) uracil, (acp3)w, and 2,6-diaminopurine. Alternatively, the antisense nucleic acid can be produced biologically using an expression vector into which a nucleic acid has been sub-cloned in an antisense orientation (*i.e.*, RNA transcribed from the inserted nucleic acid will be of an antisense orientation to a target nucleic acid of interest, described further in the following subsection).

The antisense nucleic acid molecules of the invention are typically administered to a subject or generated *in situ* such that they hybridize with or bind to cellular mRNA and/or genomic DNA encoding a polypeptide corresponding to a selected marker of the invention to thereby inhibit expression of the marker, *e.g.*, by inhibiting transcription and/or translation. The hybridization can be by conventional nucleotide complementarity to form a stable duplex, or, for example, in the case of an antisense nucleic acid molecule which binds to DNA duplexes, through specific interactions in the major groove of the double helix. Examples of a route of administration of antisense nucleic acid molecules of the invention includes direct injection at a tissue site or infusion of the antisense nucleic acid into an ovary-associated body fluid. Alternatively, antisense nucleic acid molecules can be modified to target selected cells and then administered systemically. For example, for systemic administration, antisense molecules can be modified such that they specifically bind to receptors or antigens expressed on a selected cell surface, *e.g.*, by linking the antisense nucleic acid molecules

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to peptides or antibodies which bind to cell surface receptors or antigens. The antisense nucleic acid molecules can also be delivered to cells using the vectors described herein. To achieve sufficient intracellular concentrations of the antisense molecules, vector constructs in which the antisense nucleic acid molecule is placed under the control of a strong pol II or pol III promoter are preferred.

An antisense nucleic acid molecule of the invention can be an α -anomeric nucleic acid molecule. An α -anomeric nucleic acid molecule forms specific double-stranded hybrids with complementary RNA in which, contrary to the usual α -units, the strands run parallel to each other (Gaultier *et al.*, 1987, *Nucleic Acids Res.* 15:6625-6641). The antisense nucleic acid molecule can also comprise a 2'-O-methylribonucleotide (Inoue *et al.*, 1987, *Nucleic Acids Res.* 15:6131-6148) or a chimeric RNA-DNA analogue (Inoue *et al.*, 1987, *FEBS Lett.* 215:327-330).

The invention also encompasses ribozymes. Ribozymes are catalytic RNA molecules with ribonuclease activity which are capable of cleaving a single-stranded nucleic acid, such as an mRNA, to which they have a complementary region. Thus, ribozymes (*e.g.*, hammerhead ribozymes as described in Haselhoff and Gerlach, 1988, *Nature* 334:585-591) can be used to catalytically cleave mRNA transcripts to thereby inhibit translation of the protein encoded by the mRNA. A ribozyme having specificity for a nucleic acid molecule encoding a polypeptide corresponding to a marker of the invention can be designed based upon the nucleotide sequence of a cDNA corresponding to the marker. For example, a derivative of a *Tetrahymena* L-19 IVS RNA can be constructed in which the nucleotide sequence of the active site is complementary to the nucleotide sequence to be cleaved (see Cech *et al.* U.S. Patent No. 4,987,071; and Cech *et al.* U.S. Patent No. 5,116,742). Alternatively, an mRNA encoding a polypeptide of the invention can be used to select a catalytic RNA having a specific ribonuclease activity from a pool of RNA molecules (see, *e.g.*, Bartel and Szostak, 1993, *Science* 261:1411-1418).

The invention also encompasses nucleic acid molecules which form triple helical structures. For example, expression of a polypeptide of the invention can be inhibited by targeting nucleotide sequences complementary to the regulatory region of the gene encoding the polypeptide (*e.g.*, the promoter and/or enhancer) to form triple helical structures that prevent transcription of the gene in target cells. See generally Helene

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(1991) *Anticancer Drug Des.* 6(6):569-84; Helene (1992) *Ann. N.Y. Acad. Sci.* 660:27-36; and Maher (1992) *Bioassays* 14(12):807-15.

In various embodiments, the nucleic acid molecules of the invention can be modified at the base moiety, sugar moiety or phosphate backbone to improve, *e.g.*, the stability, hybridization, or solubility of the molecule. For example, the deoxyribose phosphate backbone of the nucleic acids can be modified to generate peptide nucleic acids (see Hyrup *et al.*, 1996, *Bioorganic & Medicinal Chemistry* 4(1): 5-23). As used herein, the terms "peptide nucleic acids" or "PNAs" refer to nucleic acid mimics, *e.g.*, DNA mimics, in which the deoxyribose phosphate backbone is replaced by a pseudopeptide backbone and only the four natural nucleobases are retained. The neutral backbone of PNAs has been shown to allow for specific hybridization to DNA and RNA under conditions of low ionic strength. The synthesis of PNA oligomers can be performed using standard solid phase peptide synthesis protocols as described in Hyrup *et al.* (1996), *supra*; Perry-O'Keefe *et al.* (1996) *Proc. Natl. Acad. Sci. USA* 93:14670-675.

PNAs can be used in therapeutic and diagnostic applications. For example, PNAs can be used as antisense or antigene agents for sequence-specific modulation of gene expression by, *e.g.*, inducing transcription or translation arrest or inhibiting replication. PNAs can also be used, *e.g.*, in the analysis of single base pair mutations in a gene by, *e.g.*, PNA directed PCR clamping; as artificial restriction enzymes when used in combination with other enzymes, *e.g.*, S1 nucleases (Hyrup (1996), *supra*; or as probes or primers for DNA sequence and hybridization (Hyrup, 1996, *supra*; Perry-O'Keefe *et al.*, 1996, *Proc. Natl. Acad. Sci. USA* 93:14670-675).

In another embodiment, PNAs can be modified, *e.g.*, to enhance their stability or cellular uptake, by attaching lipophilic or other helper groups to PNA, by the formation of PNA-DNA chimeras, or by the use of liposomes or other techniques of drug delivery known in the art. For example, PNA-DNA chimeras can be generated which can combine the advantageous properties of PNA and DNA. Such chimeras allow DNA recognition enzymes, *e.g.*, RNASE H and DNA polymerases, to interact with the DNA portion while the PNA portion would provide high binding affinity and specificity. PNA-DNA chimeras can be linked using linkers of appropriate lengths selected in terms of base stacking, number of bonds between the nucleobases, and orientation (Hyrup,

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1996, *supra*). The synthesis of PNA-DNA chimeras can be performed as described in Hyrup (1996), *supra*, and Finn *et al.* (1996) *Nucleic Acids Res.* 24(17):3357-63. For example, a DNA chain can be synthesized on a solid support using standard phosphoramidite coupling chemistry and modified nucleoside analogs. Compounds
5 such as 5'-(4-methoxytrityl)amino-5'-deoxy-thymidine phosphoramidite can be used as a link between the PNA and the 5' end of DNA (Mag *et al.*, 1989, *Nucleic Acids Res.* 17:5973-88). PNA monomers are then coupled in a step-wise manner to produce a chimeric molecule with a 5' PNA segment and a 3' DNA segment (Finn *et al.*, 1996, *Nucleic Acids Res.* 24(17):3357-63). Alternatively, chimeric molecules can be
10 synthesized with a 5' DNA segment and a 3' PNA segment (Peterser *et al.*, 1975, *Bioorganic Med. Chem. Lett.* 5:1119-11124).

In other embodiments, the oligonucleotide can include other appended groups such as peptides (*e.g.*, for targeting host cell receptors *in vivo*), or agents facilitating transport across the cell membrane (see, *e.g.*, Letsinger *et al.*, 1989, *Proc. Natl. Acad. Sci. USA* 86:6553-6556; Lemaitre *et al.*, 1987, *Proc. Natl. Acad. Sci. USA* 84:648-652;
15 PCT Publication No. WO 88/09810) or the blood-brain barrier (see, *e.g.*, PCT Publication No. WO 89/10134). In addition, oligonucleotides can be modified with hybridization-triggered cleavage agents (see, *e.g.*, Krol *et al.*, 1988, *Bio/Techniques* 6:958-976) or intercalating agents (see, *e.g.*, Zon, 1988, *Pharm. Res.* 5:539-549). To
20 this end, the oligonucleotide can be conjugated to another molecule, *e.g.*, a peptide, hybridization triggered cross-linking agent, transport agent, hybridization-triggered cleavage agent, etc.

The invention also includes molecular beacon nucleic acids having at least one region which is complementary to a nucleic acid of the invention, such that the
25 molecular beacon is useful for quantitating the presence of the nucleic acid of the invention in a sample. A "molecular beacon" nucleic acid is a nucleic acid comprising a pair of complementary regions and having a fluorophore and a fluorescent quencher associated therewith. The fluorophore and quencher are associated with different portions of the nucleic acid in such an orientation that when the complementary regions
30 are annealed with one another, fluorescence of the fluorophore is quenched by the quencher. When the complementary regions of the nucleic acid are not annealed with

one another, fluorescence of the fluorophore is quenched to a lesser degree. Molecular beacon nucleic acids are described, for example, in U.S. Patent 5,876,930.

II. Isolated Proteins and Antibodies

5 One aspect of the invention pertains to isolated proteins which correspond to individual markers of the invention, and biologically active portions thereof, as well as polypeptide fragments suitable for use as immunogens to raise antibodies directed against a polypeptide corresponding to a marker of the invention. In one embodiment, the native polypeptide corresponding to a marker can be isolated from cells or tissue
10 sources by an appropriate purification scheme using standard protein purification techniques. In another embodiment, polypeptides corresponding to a marker of the invention are produced by recombinant DNA techniques. Alternative to recombinant expression, a polypeptide corresponding to a marker of the invention can be synthesized chemically using standard peptide synthesis techniques.

15 An "isolated" or "purified" protein or biologically active portion thereof is substantially free of cellular material or other contaminating proteins from the cell or tissue source from which the protein is derived, or substantially free of chemical precursors or other chemicals when chemically synthesized. The language "substantially free of cellular material" includes preparations of protein in which the
20 protein is separated from cellular components of the cells from which it is isolated or recombinantly produced. Thus, protein that is substantially free of cellular material includes preparations of protein having less than about 30%, 20%, 10%, or 5% (by dry weight) of heterologous protein (also referred to herein as a "contaminating protein"). When the protein or biologically active portion thereof is recombinantly produced, it is
25 also preferably substantially free of culture medium, *i.e.*, culture medium represents less than about 20%, 10%, or 5% of the volume of the protein preparation. When the protein is produced by chemical synthesis, it is preferably substantially free of chemical precursors or other chemicals, *i.e.*, it is separated from chemical precursors or other chemicals which are involved in the synthesis of the protein. Accordingly such
30 preparations of the protein have less than about 30%, 20%, 10%, 5% (by dry weight) of chemical precursors or compounds other than the polypeptide of interest.

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Biologically active portions of a polypeptide corresponding to a marker of the invention include polypeptides comprising amino acid sequences sufficiently identical to or derived from the amino acid sequence of the protein corresponding to the marker, which include fewer amino acids than the full length protein, and exhibit at least one activity of the corresponding full-length protein. Typically, biologically active portions comprise a domain or motif with at least one activity of the corresponding protein. A biologically active portion of a protein of the invention can be a polypeptide which is, for example, 10, 25, 50, 100 or more amino acids in length. Moreover, other biologically active portions, in which other regions of the protein are deleted, can be prepared by recombinant techniques and evaluated for one or more of the functional activities of the native form of a polypeptide of the invention.

Preferred polypeptides are encoded by the nucleotide sequences of Tables 1-2. Other useful proteins are substantially identical (*e.g.*, at least about 40%, preferably 50%, 60%, 70%, 80%, 90%, 95%, or 99%) to one of these sequences and retain the functional activity of the protein of the corresponding naturally-occurring protein yet differ in amino acid sequence due to natural allelic variation or mutagenesis.

To determine the percent identity of two amino acid sequences or of two nucleic acids, the sequences are aligned for optimal comparison purposes (*e.g.*, gaps can be introduced in the sequence of a first amino acid or nucleic acid sequence for optimal alignment with a second amino or nucleic acid sequence). The amino acid residues or nucleotides at corresponding amino acid positions or nucleotide positions are then compared. When a position in the first sequence is occupied by the same amino acid residue or nucleotide as the corresponding position in the second sequence, then the molecules are identical at that position. The percent identity between the two sequences is a function of the number of identical positions shared by the sequences (*i.e.*, % identity = # of identical positions/total # of positions (*e.g.*, overlapping positions) x100). In one embodiment the two sequences are the same length.

The determination of percent identity between two sequences can be accomplished using a mathematical algorithm. A preferred, non-limiting example of a mathematical algorithm utilized for the comparison of two sequences is the algorithm of Karlin and Altschul (1990) *Proc. Natl. Acad. Sci. USA* 87:2264-2268, modified as in Karlin and Altschul (1993) *Proc. Natl. Acad. Sci. USA* 90:5873-5877. Such an

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algorithm is incorporated into the NBLAST and XBLAST programs of Altschul, *et al.* (1990) *J. Mol. Biol.* 215:403-410. BLAST nucleotide searches can be performed with the NBLAST program, score = 100, wordlength = 12 to obtain nucleotide sequences homologous to a nucleic acid molecules of the invention. BLAST protein searches can be performed with the XBLAST program, score = 50, wordlength = 3 to obtain amino acid sequences homologous to a protein molecules of the invention. To obtain gapped alignments for comparison purposes, Gapped BLAST can be utilized as described in Altschul *et al.* (1997) *Nucleic Acids Res.* 25:3389-3402. Alternatively, PSI-Blast can be used to perform an iterated search which detects distant relationships between molecules. When utilizing BLAST, Gapped BLAST, and PSI-Blast programs, the default parameters of the respective programs (*e.g.*, XBLAST and NBLAST) can be used. See <http://www.ncbi.nlm.nih.gov>. Another preferred, non-limiting example of a mathematical algorithm utilized for the comparison of sequences is the algorithm of Myers and Miller, (1988) *CABIOS* 4:11-17. Such an algorithm is incorporated into the ALIGN program (version 2.0) which is part of the GCG sequence alignment software package. When utilizing the ALIGN program for comparing amino acid sequences, a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4 can be used. Yet another useful algorithm for identifying regions of local sequence similarity and alignment is the FASTA algorithm as described in Pearson and Lipman (1988) *Proc. Natl. Acad. Sci. USA* 85:2444-2448. When using the FASTA algorithm for comparing nucleotide or amino acid sequences, a PAM120 weight residue table can, for example, be used with a *k*-tuple value of 2.

The percent identity between two sequences can be determined using techniques similar to those described above, with or without allowing gaps. In calculating percent identity, only exact matches are counted.

The invention also provides chimeric or fusion proteins corresponding to a marker of the invention. As used herein, a "chimeric protein" or "fusion protein" comprises all or part (preferably a biologically active part) of a polypeptide corresponding to a marker of the invention operably linked to a heterologous polypeptide (*i.e.*, a polypeptide other than the polypeptide corresponding to the marker). Within the fusion protein, the term "operably linked" is intended to indicate that the polypeptide of the invention and the heterologous polypeptide are fused in-frame to each

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other. The heterologous polypeptide can be fused to the amino-terminus or the carboxyl-terminus of the polypeptide of the invention.

One useful fusion protein is a GST fusion protein in which a polypeptide corresponding to a marker of the invention is fused to the carboxyl terminus of GST sequences. Such fusion proteins can facilitate the purification of a recombinant polypeptide of the invention.

In another embodiment, the fusion protein contains a heterologous signal sequence at its amino terminus. For example, the native signal sequence of a polypeptide corresponding to a marker of the invention can be removed and replaced with a signal sequence from another protein. For example, the gp67 secretory sequence of the baculovirus envelope protein can be used as a heterologous signal sequence (Ausubel *et al.*, ed., *Current Protocols in Molecular Biology*, John Wiley & Sons, NY, 1992). Other examples of eukaryotic heterologous signal sequences include the secretory sequences of melittin and human placental alkaline phosphatase (Stratagene; La Jolla, California). In yet another example, useful prokaryotic heterologous signal sequences include the phoA secretory signal (Sambrook *et al.*, *supra*) and the protein A secretory signal (Pharmacia Biotech; Piscataway, New Jersey).

In yet another embodiment, the fusion protein is an immunoglobulin fusion protein in which all or part of a polypeptide corresponding to a marker of the invention is fused to sequences derived from a member of the immunoglobulin protein family. The immunoglobulin fusion proteins of the invention can be incorporated into pharmaceutical compositions and administered to a subject to inhibit an interaction between a ligand (soluble or membrane-bound) and a protein on the surface of a cell (receptor), to thereby suppress signal transduction *in vivo*. The immunoglobulin fusion protein can be used to affect the bioavailability of a cognate ligand of a polypeptide of the invention. Inhibition of ligand/receptor interaction can be useful therapeutically, both for treating proliferative and differentiative disorders and for modulating (*e.g.* promoting or inhibiting) cell survival. Moreover, the immunoglobulin fusion proteins of the invention can be used as immunogens to produce antibodies directed against a polypeptide of the invention in a subject, to purify ligands and in screening assays to identify molecules which inhibit the interaction of receptors with ligands.

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Chimeric and fusion proteins of the invention can be produced by standard recombinant DNA techniques. In another embodiment, the fusion gene can be synthesized by conventional techniques including automated DNA synthesizers. Alternatively, PCR amplification of gene fragments can be carried out using anchor
5 primers which give rise to complementary overhangs between two consecutive gene fragments which can subsequently be annealed and re-amplified to generate a chimeric gene sequence (see, *e.g.*, Ausubel *et al.*, *supra*). Moreover, many expression vectors are commercially available that already encode a fusion moiety (*e.g.*, a GST polypeptide). A nucleic acid encoding a polypeptide of the invention can be cloned into such an
10 expression vector such that the fusion moiety is linked in-frame to the polypeptide of the invention.

A signal sequence can be used to facilitate secretion and isolation of the secreted protein or other proteins of interest. Signal sequences are typically characterized by a core of hydrophobic amino acids which are generally cleaved from the mature protein
15 during secretion in one or more cleavage events. Such signal peptides contain processing sites that allow cleavage of the signal sequence from the mature proteins as they pass through the secretory pathway. Thus, the invention pertains to the described polypeptides having a signal sequence, as well as to polypeptides from which the signal sequence has been proteolytically cleaved (*i.e.*, the cleavage products). In one
20 embodiment, a nucleic acid sequence encoding a signal sequence can be operably linked in an expression vector to a protein of interest, such as a protein which is ordinarily not secreted or is otherwise difficult to isolate. The signal sequence directs secretion of the protein, such as from a eukaryotic host into which the expression vector is transformed, and the signal sequence is subsequently or concurrently cleaved. The protein can then
25 be readily purified from the extracellular medium by art recognized methods. Alternatively, the signal sequence can be linked to the protein of interest using a sequence which facilitates purification, such as with a GST domain.

The present invention also pertains to variants of the polypeptides corresponding to individual markers of the invention. Such variants have an altered amino acid
30 sequence which can function as either agonists (mimetics) or as antagonists. Variants can be generated by mutagenesis, *e.g.*, discrete point mutation or truncation. An agonist can retain substantially the same, or a subset, of the biological activities of the naturally

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occurring form of the protein. An antagonist of a protein can inhibit one or more of the activities of the naturally occurring form of the protein by, for example, competitively binding to a downstream or upstream member of a cellular signaling cascade which includes the protein of interest. Thus, specific biological effects can be elicited by treatment with a variant of limited function. Treatment of a subject with a variant having a subset of the biological activities of the naturally occurring form of the protein can have fewer side effects in a subject relative to treatment with the naturally occurring form of the protein.

Variants of a protein of the invention which function as either agonists (mimetics) or as antagonists can be identified by screening combinatorial libraries of mutants, *e.g.*, truncation mutants, of the protein of the invention for agonist or antagonist activity. In one embodiment, a variegated library of variants is generated by combinatorial mutagenesis at the nucleic acid level and is encoded by a variegated gene library. A variegated library of variants can be produced by, for example, enzymatically ligating a mixture of synthetic oligonucleotides into gene sequences such that a degenerate set of potential protein sequences is expressible as individual polypeptides, or alternatively, as a set of larger fusion proteins (*e.g.*, for phage display). There are a variety of methods which can be used to produce libraries of potential variants of the polypeptides of the invention from a degenerate oligonucleotide sequence. Methods for synthesizing degenerate oligonucleotides are known in the art (see, *e.g.*, Narang, 1983, *Tetrahedron* 39:3; Itakura *et al.*, 1984, *Annu. Rev. Biochem.* 53:323; Itakura *et al.*, 1984, *Science* 198:1056; Ike *et al.*, 1983 *Nucleic Acid Res.* 11:477).

In addition, libraries of fragments of the coding sequence of a polypeptide corresponding to a marker of the invention can be used to generate a variegated population of polypeptides for screening and subsequent selection of variants. For example, a library of coding sequence fragments can be generated by treating a double stranded PCR fragment of the coding sequence of interest with a nuclease under conditions wherein nicking occurs only about once per molecule, denaturing the double stranded DNA, renaturing the DNA to form double stranded DNA which can include sense/antisense pairs from different nicked products, removing single stranded portions from reformed duplexes by treatment with S1 nuclease, and ligating the resulting fragment library into an expression vector. By this method, an expression library can be

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derived which encodes amino terminal and internal fragments of various sizes of the protein of interest.

Several techniques are known in the art for screening gene products of combinatorial libraries made by point mutations or truncation, and for screening cDNA
5 libraries for gene products having a selected property. The most widely used techniques, which are amenable to high through-put analysis, for screening large gene libraries typically include cloning the gene library into replicable expression vectors, transforming appropriate cells with the resulting library of vectors, and expressing the combinatorial genes under conditions in which detection of a desired activity facilitates
10 isolation of the vector encoding the gene whose product was detected. Recursive ensemble mutagenesis (REM), a technique which enhances the frequency of functional mutants in the libraries, can be used in combination with the screening assays to identify variants of a protein of the invention (Arkin and Yourvan, 1992, *Proc. Natl. Acad. Sci. USA* 89:7811-7815; Delgrave *et al.*, 1993, *Protein Engineering* 6(3):327- 331).

15 An isolated polypeptide corresponding to a marker of the invention, or a fragment thereof, can be used as an immunogen to generate antibodies using standard techniques for polyclonal and monoclonal antibody preparation. The full-length polypeptide or protein can be used or, alternatively, the invention provides antigenic peptide fragments for use as immunogens. The antigenic peptide of a protein of the
20 invention comprises at least 8 (preferably 10, 15, 20, or 30 or more) amino acid residues of the amino acid sequence of one of the polypeptides of the invention, and encompasses an epitope of the protein such that an antibody raised against the peptide forms a specific immune complex with a marker of the invention to which the protein corresponds. Preferred epitopes encompassed by the antigenic peptide are regions that are located on
25 the surface of the protein, *e.g.*, hydrophilic regions. Hydrophobicity sequence analysis, hydrophilicity sequence analysis, or similar analyses can be used to identify hydrophilic regions.

An immunogen typically is used to prepare antibodies by immunizing a suitable (*i.e.* immunocompetent) subject such as a rabbit, goat, mouse, or other mammal or
30 vertebrate. An appropriate immunogenic preparation can contain, for example, recombinantly-expressed or chemically-synthesized polypeptide. The preparation can

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further include an adjuvant, such as Freund's complete or incomplete adjuvant, or a similar immunostimulatory agent.

Accordingly, another aspect of the invention pertains to antibodies directed against a polypeptide of the invention. The terms "antibody" and "antibody substance" as used interchangeably herein refer to immunoglobulin molecules and immunologically active portions of immunoglobulin molecules, *i.e.*, molecules that contain an antigen binding site which specifically binds an antigen, such as a polypeptide of the invention, *e.g.*, an epitope of a polypeptide of the invention. A molecule which specifically binds to a given polypeptide of the invention is a molecule which binds the polypeptide, but does not substantially bind other molecules in a sample, *e.g.*, a biological sample, which naturally contains the polypeptide. Examples of immunologically active portions of immunoglobulin molecules include F(ab) and F(ab')₂ fragments which can be generated by treating the antibody with an enzyme such as pepsin. The invention provides polyclonal and monoclonal antibodies. The term "monoclonal antibody" or "monoclonal antibody composition", as used herein, refers to a population of antibody molecules that contain only one species of an antigen binding site capable of immunoreacting with a particular epitope.

Polyclonal antibodies can be prepared as described above by immunizing a suitable subject with a polypeptide of the invention as an immunogen. Preferred polyclonal antibody compositions are ones that have been selected for antibodies directed against a polypeptide or polypeptides of the invention. Particularly preferred polyclonal antibody preparations are ones that contain only antibodies directed against a polypeptide or polypeptides of the invention. Particularly preferred immunogen compositions are those that contain no other human proteins such as, for example, immunogen compositions made using a non-human host cell for recombinant expression of a polypeptide of the invention. In such a manner, the only human epitope or epitopes recognized by the resulting antibody compositions raised against this immunogen will be present as part of a polypeptide or polypeptides of the invention.

The antibody titer in the immunized subject can be monitored over time by standard techniques, such as with an enzyme linked immunosorbent assay (ELISA) using immobilized polypeptide. If desired, the antibody molecules can be harvested or isolated from the subject (*e.g.*, from the blood or serum of the subject) and further

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purified by well-known techniques, such as protein A chromatography to obtain the IgG fraction. Alternatively, antibodies specific for a protein or polypeptide of the invention can be selected or (*e.g.*, partially purified) or purified by, *e.g.*, affinity chromatography. For example, a recombinantly expressed and purified (or partially purified) protein of the invention is produced as described herein, and covalently or non-covalently coupled to a solid support such as, for example, a chromatography column. The column can then be used to affinity purify antibodies specific for the proteins of the invention from a sample containing antibodies directed against a large number of different epitopes, thereby generating a substantially purified antibody composition, *i.e.*, one that is substantially free of contaminating antibodies. By a substantially purified antibody composition is meant, in this context, that the antibody sample contains at most only 30% (by dry weight) of contaminating antibodies directed against epitopes other than those of the desired protein or polypeptide of the invention, and preferably at most 20%, yet more preferably at most 10%, and most preferably at most 5% (by dry weight) of the sample is contaminating antibodies. A purified antibody composition means that at least 99% of the antibodies in the composition are directed against the desired protein or polypeptide of the invention.

At an appropriate time after immunization, *e.g.*, when the specific antibody titers are highest, antibody-producing cells can be obtained from the subject and used to prepare monoclonal antibodies by standard techniques, such as the hybridoma technique originally described by Kohler and Milstein (1975) *Nature* 256:495-497, the human B cell hybridoma technique (see Kozbor *et al.*, 1983, *Immunol. Today* 4:72), the EBV-hybridoma technique (see Cole *et al.*, pp. 77-96 In *Monoclonal Antibodies and Cancer Therapy*, Alan R. Liss, Inc., 1985) or trioma techniques. The technology for producing hybridomas is well known (see generally *Current Protocols in Immunology*, Coligan *et al.* ed., John Wiley & Sons, New York, 1994). Hybridoma cells producing a monoclonal antibody of the invention are detected by screening the hybridoma culture supernatants for antibodies that bind the polypeptide of interest, *e.g.*, using a standard ELISA assay.

Alternative to preparing monoclonal antibody-secreting hybridomas, a monoclonal antibody directed against a polypeptide of the invention can be identified and isolated by screening a recombinant combinatorial immunoglobulin library (*e.g.*, an

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antibody phage display library) with the polypeptide of interest. Kits for generating and screening phage display libraries are commercially available (e.g., the Pharmacia *Recombinant Phage Antibody System*, Catalog No. 27-9400-01; and the Stratagene *SurfZAP Phage Display Kit*, Catalog No. 240612). Additionally, examples of methods and reagents particularly amenable for use in generating and screening antibody display library can be found in, for example, U.S. Patent No. 5,223,409; PCT Publication No. WO 92/18619; PCT Publication No. WO 91/17271; PCT Publication No. WO 92/20791; PCT Publication No. WO 92/15679; PCT Publication No. WO 93/01288; PCT Publication No. WO 92/01047; PCT Publication No. WO 92/09690; PCT Publication No. WO 90/02809; Fuchs *et al.* (1991) *Bio/Technology* 9:1370-1372; Hay *et al.* (1992) *Hum. Antibod. Hybridomas* 3:81-85; Huse *et al.* (1989) *Science* 246:1275-1281; Griffiths *et al.* (1993) *EMBO J.* 12:725-734.

Additionally, recombinant antibodies, such as chimeric and humanized monoclonal antibodies, comprising both human and non-human portions, which can be made using standard recombinant DNA techniques, are within the scope of the invention. A chimeric antibody is a molecule in which different portions are derived from different animal species, such as those having a variable region derived from a murine mAb and a human immunoglobulin constant region. (See, e.g., Cabilly *et al.*, U.S. Patent No. 4,816,567; and Boss *et al.*, U.S. Patent No. 4,816,397, which are incorporated herein by reference in their entirety.) Humanized antibodies are antibody molecules from non-human species having one or more complementarily determining regions (CDRs) from the non-human species and a framework region from a human immunoglobulin molecule. (See, e.g., Queen, U.S. Patent No. 5,585,089, which is incorporated herein by reference in its entirety.) Such chimeric and humanized monoclonal antibodies can be produced by recombinant DNA techniques known in the art, for example using methods described in PCT Publication No. WO 87/02671; European Patent Application 184,187; European Patent Application 171,496; European Patent Application 173,494; PCT Publication No. WO 86/01533; U.S. Patent No. 4,816,567; European Patent Application 125,023; Better *et al.* (1988) *Science* 240:1041-1043; Liu *et al.* (1987) *Proc. Natl. Acad. Sci. USA* 84:3439-3443; Liu *et al.* (1987) *J. Immunol.* 139:3521-3526; Sun *et al.* (1987) *Proc. Natl. Acad. Sci. USA* 84:214-218; Nishimura *et al.* (1987) *Cancer Res.* 47:999-1005; Wood *et al.* (1985) *Nature* 314:446-

449; and Shaw *et al.* (1988) *J. Natl. Cancer Inst.* 80:1553-1559); Morrison (1985) *Science* 229:1202-1207; Oi *et al.* (1986) *Bio/Techniques* 4:214; U.S. Patent 5,225,539; Jones *et al.* (1986) *Nature* 321:552-525; Verhoeyan *et al.* (1988) *Science* 239:1534; and Beidler *et al.* (1988) *J. Immunol.* 141:4053-4060.

5 Antibodies of the invention may be used as therapeutic agents in treating cancers. In a preferred embodiment, completely human antibodies of the invention are used for therapeutic treatment of human cancer patients, particularly those having an ovarian cancer. Such antibodies can be produced, for example, using transgenic mice which are incapable of expressing endogenous immunoglobulin heavy and light chains
10 genes, but which can express human heavy and light chain genes. The transgenic mice are immunized in the normal fashion with a selected antigen, *e.g.*, all or a portion of a polypeptide corresponding to a marker of the invention. Monoclonal antibodies directed against the antigen can be obtained using conventional hybridoma technology. The human immunoglobulin transgenes harbored by the transgenic mice rearrange during B
15 cell differentiation, and subsequently undergo class switching and somatic mutation. Thus, using such a technique, it is possible to produce therapeutically useful IgG, IgA and IgE antibodies. For an overview of this technology for producing human antibodies, see Lonberg and Huszar (1995) *Int. Rev. Immunol.* 13:65-93). For a detailed discussion of this technology for producing human antibodies and human monoclonal antibodies
20 and protocols for producing such antibodies, see, *e.g.*, U.S. Patent 5,625,126; U.S. Patent 5,633,425; U.S. Patent 5,569,825; U.S. Patent 5,661,016; and U.S. Patent 5,545,806. In addition, companies such as Abgenix, Inc. (Freemont, CA), can be engaged to provide human antibodies directed against a selected antigen using technology similar to that described above.

25 Completely human antibodies which recognize a selected epitope can be generated using a technique referred to as "guided selection." In this approach a selected non-human monoclonal antibody, *e.g.*, a murine antibody, is used to guide the selection of a completely human antibody recognizing the same epitope (Jespers *et al.*, 1994, *Bio/technology* 12:899-903).

30 An antibody directed against a polypeptide corresponding to a marker of the invention (*e.g.*, a monoclonal antibody) can be used to isolate the polypeptide by standard techniques, such as affinity chromatography or immunoprecipitation.

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Moreover, such an antibody can be used to detect the marker (*e.g.*, in a cellular lysate or cell supernatant) in order to evaluate the level and pattern of expression of the marker. The antibodies can also be used diagnostically to monitor protein levels in tissues or body fluids (*e.g.* in an ovary-associated body fluid) as part of a clinical testing
5 procedure, *e.g.*, to, for example, determine the efficacy of a given treatment regimen. Detection can be facilitated by coupling the antibody to a detectable substance. Examples of detectable substances include various enzymes, prosthetic groups, fluorescent materials, luminescent materials, bioluminescent materials, and radioactive materials. Examples of suitable enzymes include horseradish peroxidase, alkaline
10 phosphatase, β -galactosidase, or acetylcholinesterase; examples of suitable prosthetic group complexes include streptavidin/biotin and avidin/biotin; examples of suitable fluorescent materials include umbelliferone, fluorescein, fluorescein isothiocyanate, rhodamine, dichlorotriazinylamine fluorescein, dansyl chloride or phycoerythrin; an example of a luminescent material includes luminol; examples of bioluminescent
15 materials include luciferase, luciferin, and aequorin, and examples of suitable radioactive material include ^{125}I , ^{131}I , ^{35}S or ^3H .

Further, an antibody (or fragment thereof) can be conjugated to a therapeutic moiety such as a cytotoxin, a therapeutic agent or a radioactive metal ion. A cytotoxin or cytotoxic agent includes any agent that is detrimental to cells. Examples include
20 taxol, cytochalasin B, gramicidin D, ethidium bromide, emetine, mitomycin, etoposide, teniposide, vincristine, vinblastine, colchicin, doxorubicin, daunorubicin, dihydroxy anthracin dione, mitoxantrone, mithramycin, actinomycin D, 1-dehydrotestosterone, glucocorticoids, procaine, tetracaine, lidocaine, propranolol, and puromycin and analogs or homologs thereof. Therapeutic agents include, but are not limited to, antimetabolites
25 (*e.g.*, methotrexate, 6-mercaptopurine, 6-thioguanine, cytarabine, 5-fluorouracil decarbazine), alkylating agents (*e.g.*, mechlorethamine, thioepa chlorambucil, melphalan, carmustine (BSNU) and lomustine (CCNU), cyclophosphamide, busulfan, dibromomannitol, streptozotocin, mitomycin C, and cis-dichlorodiamine platinum (II) (DDP) cisplatin), anthracyclines (*e.g.*, daunorubicin (formerly daunomycin) and
30 doxorubicin), antibiotics (*e.g.*, dactinomycin (formerly actinomycin), bleomycin, mithramycin, and anthramycin (AMC)), and anti-mitotic agents (*e.g.*, vincristine and vinblastine).

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The conjugates of the invention can be used for modifying a given biological response, the drug moiety is not to be construed as limited to classical chemical therapeutic agents. For example, the drug moiety may be a protein or polypeptide possessing a desired biological activity. Such proteins may include, for example, a toxin
5 such as abrin, ricin A, pseudomonas exotoxin, or diphtheria toxin; a protein such as tumor necrosis factor, .alpha.-interferon, .beta.-interferon, nerve growth factor, platelet derived growth factor, tissue plasminogen activator; or, biological response modifiers such as, for example, lymphokines, interleukin-1 ("IL-1"), interleukin-2 ("IL-2"), interleukin-6 ("IL-6"), granulocyte macrophase colony stimulating factor ("GM-CSF"),
10 granulocyte colony stimulating factor ("G-CSF"), or other growth factors.

Techniques for conjugating such therapeutic moiety to antibodies are well known, see, *e.g.*, Arnon et al., "Monoclonal Antibodies For Immunotargeting Of Drugs In Cancer Therapy", in *Monoclonal Antibodies And Cancer Therapy*, Reisfeld et al. (eds.), pp. 243-56 (Alan R. Liss, Inc. 1985); Hellstrom et al., "Antibodies For Drug
15 Delivery", in *Controlled Drug Delivery* (2nd Ed.), Robinson et al. (eds.), pp. 623-53 (Marcel Dekker, Inc. 1987); Thorpe, "Antibody Carriers Of Cytotoxic Agents In Cancer Therapy: A Review", in *Monoclonal Antibodies '84: Biological And Clinical Applications*, Pinchera et al. (eds.), pp. 475-506 (1985); "Analysis, Results, And Future Prospective Of The Therapeutic Use Of Radiolabeled Antibody In Cancer Therapy", in
20 *Monoclonal Antibodies For Cancer Detection And Therapy*, Baldwin et al. (eds.), pp. 303-16 (Academic Press 1985), and Thorpe et al., "The Preparation And Cytotoxic Properties Of Antibody-Toxin Conjugates", *Immunol. Rev.*, 62:119-58 (1982).

Alternatively, an antibody can be conjugated to a second antibody to form an antibody heteroconjugate as described by Segal in U.S. Patent No. 4,676,980.

25 Accordingly, in one aspect, the invention provides substantially purified antibodies or fragments thereof, and non-human antibodies or fragments thereof, which antibodies or fragments specifically bind to a polypeptide comprising an amino acid sequence selected from the group consisting of the amino acid sequences of the present invention, an amino acid sequence encoded by the cDNA of the present invention, a
30 fragment of at least 15 amino acid residues of an amino acid sequence of the present invention, an amino acid sequence which is at least 95% identical to the amino acid sequence of the present invention (wherein the percent identity is determined using the

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ALIGN program of the GCG software package with a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4) and an amino acid sequence which is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule consisting of the nucleic acid molecules of the present invention, or a complement thereof, under conditions of hybridization of 6X SSC at 45°C and washing in 0.2 X SSC, 0.1% SDS at 65°C. In various embodiments, the substantially purified antibodies of the invention, or fragments thereof, can be human, non-human, chimeric and/or humanized antibodies.

In another aspect, the invention provides non-human antibodies or fragments thereof, which antibodies or fragments specifically bind to a polypeptide comprising an amino acid sequence selected from the group consisting of: the amino acid sequence of the present invention, an amino acid sequence encoded by the cDNA of the present invention, a fragment of at least 15 amino acid residues of the amino acid sequence of the present invention, an amino acid sequence which is at least 95% identical to the amino acid sequence of the present invention (wherein the percent identity is determined using the ALIGN program of the GCG software package with a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4) and an amino acid sequence which is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule consisting of the nucleic acid molecules of the present invention, or a complement thereof, under conditions of hybridization of 6X SSC at 45°C and washing in 0.2 X SSC, 0.1% SDS at 65°C. Such non-human antibodies can be goat, mouse, sheep, horse, chicken, rabbit, or rat antibodies. Alternatively, the non-human antibodies of the invention can be chimeric and/or humanized antibodies. In addition, the non-human antibodies of the invention can be polyclonal antibodies or monoclonal antibodies.

In still a further aspect, the invention provides monoclonal antibodies or fragments thereof, which antibodies or fragments specifically bind to a polypeptide comprising an amino acid sequence selected from the group consisting of the amino acid sequences of the present invention, an amino acid sequence encoded by the cDNA of the present invention, a fragment of at least 15 amino acid residues of an amino acid sequence of the present invention, an amino acid sequence which is at least 95% identical to an amino acid sequence of the present invention (wherein the percent

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identity is determined using the ALIGN program of the GCG software package with a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4) and an amino acid sequence which is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule consisting of the nucleic acid molecules of the present invention,
5 or a complement thereof, under conditions of hybridization of 6X SSC at 45°C and washing in 0.2 X SSC, 0.1% SDS at 65°C. The monoclonal antibodies can be human, humanized, chimeric and/or non-human antibodies.

The substantially purified antibodies or fragments thereof may specifically bind to a signal peptide, a secreted sequence, an extracellular domain, a transmembrane or a
10 cytoplasmic domain or cytoplasmic membrane of a polypeptide of the invention. In a particularly preferred embodiment, the substantially purified antibodies or fragments thereof, the non-human antibodies or fragments thereof, and/or the monoclonal antibodies or fragments thereof, of the invention specifically bind to a secreted sequence or an extracellular domain of the amino acid sequences of the present invention.

15 Any of the antibodies of the invention can be conjugated to a therapeutic moiety or to a detectable substance. Non-limiting examples of detectable substances that can be conjugated to the antibodies of the invention are an enzyme, a prosthetic group, a fluorescent material, a luminescent material, a bioluminescent material, and a radioactive material.

20 The invention also provides a kit containing an antibody of the invention conjugated to a detectable substance, and instructions for use. Still another aspect of the invention is a pharmaceutical composition comprising an antibody of the invention and a pharmaceutically acceptable carrier. In preferred embodiments, the pharmaceutical composition contains an antibody of the invention, a therapeutic moiety, and a
25 pharmaceutically acceptable carrier.

Still another aspect of the invention is a method of making an antibody that specifically recognizes a polypeptide of the present invention, the method comprising immunizing a mammal with a polypeptide. The polypeptide used as an immungen comprises an amino acid sequence selected from the group consisting of the amino acid
30 sequence of the present invention, an amino acid sequence encoded by the cDNA of the nucleic acid molecules of the present invention, a fragment of at least 15 amino acid residues of the amino acid sequence of the present invention, an amino acid sequence

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which is at least 95% identical to the amino acid sequence of the present invention (wherein the percent identity is determined using the ALIGN program of the GCG software package with a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4) and an amino acid sequence which is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule consisting of the nucleic acid molecules of the present invention, or a complement thereof, under conditions of hybridization of 6X SSC at 45°C and washing in 0.2 X SSC, 0.1% SDS at 65°C.

After immunization, a sample is collected from the mammal that contains an antibody that specifically recognizes the polypeptide. Preferably, the polypeptide is recombinantly produced using a non-human host cell. Optionally, the antibodies can be further purified from the sample using techniques well known to those of skill in the art. The method can further comprise producing a monoclonal antibody-producing cell from the cells of the mammal. Optionally, antibodies are collected from the antibody-producing cell.

15

III. Recombinant Expression Vectors and Host Cells

Another aspect of the invention pertains to vectors, preferably expression vectors, containing a nucleic acid encoding a polypeptide corresponding to a marker of the invention (or a portion of such a polypeptide). As used herein, the term "vector" refers to a nucleic acid molecule capable of transporting another nucleic acid to which it has been linked. One type of vector is a "plasmid", which refers to a circular double stranded DNA loop into which additional DNA segments can be ligated. Another type of vector is a viral vector, wherein additional DNA segments can be ligated into the viral genome. Certain vectors are capable of autonomous replication in a host cell into which they are introduced (*e.g.*, bacterial vectors having a bacterial origin of replication and episomal mammalian vectors). Other vectors (*e.g.*, non-episomal mammalian vectors) are integrated into the genome of a host cell upon introduction into the host cell, and thereby are replicated along with the host genome. Moreover, certain vectors, namely expression vectors, are capable of directing the expression of genes to which they are operably linked. In general, expression vectors of utility in recombinant DNA techniques are often in the form of plasmids (vectors). However, the invention is intended to include such other forms of expression vectors, such as viral vectors (*e.g.*,

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replication defective retroviruses, adenoviruses and adeno-associated viruses), which serve equivalent functions.

The recombinant expression vectors of the invention comprise a nucleic acid of the invention in a form suitable for expression of the nucleic acid in a host cell. This
5 means that the recombinant expression vectors include one or more regulatory sequences, selected on the basis of the host cells to be used for expression, which is operably linked to the nucleic acid sequence to be expressed. Within a recombinant expression vector, "operably linked" is intended to mean that the nucleotide sequence of interest is linked to the regulatory sequence(s) in a manner which allows for expression
10 of the nucleotide sequence (*e.g.*, in an *in vitro* transcription/translation system or in a host cell when the vector is introduced into the host cell). The term "regulatory sequence" is intended to include promoters, enhancers and other expression control elements (*e.g.*, polyadenylation signals). Such regulatory sequences are described, for example, in Goeddel, *Methods in Enzymology: Gene Expression Technology* vol.185,
15 Academic Press, San Diego, CA (1991). Regulatory sequences include those which direct constitutive expression of a nucleotide sequence in many types of host cell and those which direct expression of the nucleotide sequence only in certain host cells (*e.g.*, tissue-specific regulatory sequences). It will be appreciated by those skilled in the art that the design of the expression vector can depend on such factors as the choice of the
20 host cell to be transformed, the level of expression of protein desired, and the like. The expression vectors of the invention can be introduced into host cells to thereby produce proteins or peptides, including fusion proteins or peptides, encoded by nucleic acids as described herein.

The recombinant expression vectors of the invention can be designed for
25 expression of a polypeptide corresponding to a marker of the invention in prokaryotic (*e.g.*, *E. coli*) or eukaryotic cells (*e.g.*, insect cells {using baculovirus expression vectors}, yeast cells or mammalian cells). Suitable host cells are discussed further in Goeddel, *supra*. Alternatively, the recombinant expression vector can be transcribed and translated *in vitro*, for example using T7 promoter regulatory sequences and T7
30 polymerase.

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Expression of proteins in prokaryotes is most often carried out in *E. coli* with vectors containing constitutive or inducible promoters directing the expression of either fusion or non-fusion proteins. Fusion vectors add a number of amino acids to a protein encoded therein, usually to the amino terminus of the recombinant protein. Such fusion
5 vectors typically serve three purposes: 1) to increase expression of recombinant protein; 2) to increase the solubility of the recombinant protein; and 3) to aid in the purification of the recombinant protein by acting as a ligand in affinity purification. Often, in fusion expression vectors, a proteolytic cleavage site is introduced at the junction of the fusion moiety and the recombinant protein to enable separation of the recombinant protein
10 from the fusion moiety subsequent to purification of the fusion protein. Such enzymes, and their cognate recognition sequences, include Factor Xa, thrombin and enterokinase. Typical fusion expression vectors include pGEX (Pharmacia Biotech Inc; Smith and Johnson, 1988, *Gene* 67:31-40), pMAL (New England Biolabs, Beverly, MA) and pRIT5 (Pharmacia, Piscataway, NJ) which fuse glutathione S-transferase (GST),
15 maltose E binding protein, or protein A, respectively, to the target recombinant protein.

Examples of suitable inducible non-fusion *E. coli* expression vectors include pTrc (Amann *et al.*, 1988, *Gene* 69:301-315) and pET 11d (Studier *et al.*, p. 60-89, In *Gene Expression Technology: Methods in Enzymology* vol.185, Academic Press, San Diego, CA, 1991). Target gene expression from the pTrc vector relies on host RNA
20 polymerase transcription from a hybrid trp-lac fusion promoter. Target gene expression from the pET 11d vector relies on transcription from a T7 gn10-lac fusion promoter mediated by a co-expressed viral RNA polymerase (T7 gn1). This viral polymerase is supplied by host strains BL21(DE3) or HMS174(DE3) from a resident prophage harboring a T7 gn1 gene under the transcriptional control of the lacUV 5 promoter.

25 One strategy to maximize recombinant protein expression in *E. coli* is to express the protein in a host bacteria with an impaired capacity to proteolytically cleave the recombinant protein (Gottesman, p. 119-128, In *Gene Expression Technology: Methods in Enzymology* vol. 185, Academic Press, San Diego, CA, 1990. Another strategy is to alter the nucleic acid sequence of the nucleic acid to be inserted into an expression
30 vector so that the individual codons for each amino acid are those preferentially utilized in *E. coli* (Wada *et al.*, 1992, *Nucleic Acids Res.* 20:2111-2118). Such alteration of

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nucleic acid sequences of the invention can be carried out by standard DNA synthesis techniques.

In another embodiment, the expression vector is a yeast expression vector. Examples of vectors for expression in yeast *S. cerevisiae* include pYepSec1 (Baldari *et al.*, 1987, *EMBO J.* 6:229-234), pMFa (Kurjan and Herskowitz, 1982, *Cell* 30:933-943), pJRY88 (Schultz *et al.*, 1987, *Gene* 54:113-123), pYES2 (Invitrogen Corporation, San Diego, CA), and pPicZ (Invitrogen Corp, San Diego, CA).

Alternatively, the expression vector is a baculovirus expression vector. Baculovirus vectors available for expression of proteins in cultured insect cells (*e.g.*, Sf 9 cells) include the pAc series (Smith *et al.*, 1983, *Mol. Cell Biol.* 3:2156-2165) and the pVL series (Lucklow and Summers, 1989, *Virology* 170:31-39).

In yet another embodiment, a nucleic acid of the invention is expressed in mammalian cells using a mammalian expression vector. Examples of mammalian expression vectors include pCDM8 (Seed, 1987, *Nature* 329:840) and pMT2PC (Kaufman *et al.*, 1987, *EMBO J.* 6:187-195). When used in mammalian cells, the expression vector's control functions are often provided by viral regulatory elements. For example, commonly used promoters are derived from polyoma, Adenovirus 2, cytomegalovirus and Simian Virus 40. For other suitable expression systems for both prokaryotic and eukaryotic cells see chapters 16 and 17 of Sambrook *et al.*, *supra*.

In another embodiment, the recombinant mammalian expression vector is capable of directing expression of the nucleic acid preferentially in a particular cell type (*e.g.*, tissue-specific regulatory elements are used to express the nucleic acid). Tissue-specific regulatory elements are known in the art. Non-limiting examples of suitable tissue-specific promoters include the albumin promoter (liver-specific; Pinkert *et al.*, 1987, *Genes Dev.* 1:268-277), lymphoid-specific promoters (Calame and Eaton, 1988, *Adv. Immunol.* 43:235-275), in particular promoters of T cell receptors (Winoto and Baltimore, 1989, *EMBO J.* 8:729-733) and immunoglobulins (Banerji *et al.*, 1983, *Cell* 33:729-740; Queen and Baltimore, 1983, *Cell* 33:741-748), neuron-specific promoters (*e.g.*, the neurofilament promoter; Byrne and Ruddle, 1989, *Proc. Natl. Acad. Sci. USA* 86:5473-5477), pancreas-specific promoters (Edlund *et al.*, 1985, *Science* 230:912-916), and mammary gland-specific promoters (*e.g.*, milk whey promoter; U.S. Patent No. 4,873,316 and European Application Publication No. 264,166). Developmentally-

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regulated promoters are also encompassed, for example the murine hox promoters (Kessel and Gruss, 1990, *Science* 249:374-379) and the α -fetoprotein promoter (Camper and Tilghman, 1989, *Genes Dev.* 3:537-546).

The invention further provides a recombinant expression vector comprising a
5 DNA molecule of the invention cloned into the expression vector in an antisense orientation. That is, the DNA molecule is operably linked to a regulatory sequence in a manner which allows for expression (by transcription of the DNA molecule) of an RNA molecule which is antisense to the mRNA encoding a polypeptide of the invention. Regulatory sequences operably linked to a nucleic acid cloned in the antisense
10 orientation can be chosen which direct the continuous expression of the antisense RNA molecule in a variety of cell types, for instance viral promoters and/or enhancers, or regulatory sequences can be chosen which direct constitutive, tissue-specific or cell type specific expression of antisense RNA. The antisense expression vector can be in the form of a recombinant plasmid, phagemid, or attenuated virus in which antisense nucleic
15 acids are produced under the control of a high efficiency regulatory region, the activity of which can be determined by the cell type into which the vector is introduced. For a discussion of the regulation of gene expression using antisense genes see Weintraub *et al.*, 1986, *Trends in Genetics*, Vol. 1(1).

Another aspect of the invention pertains to host cells into which a recombinant
20 expression vector of the invention has been introduced. The terms "host cell" and "recombinant host cell" are used interchangeably herein. It is understood that such terms refer not only to the particular subject cell but to the progeny or potential progeny of such a cell. Because certain modifications may occur in succeeding generations due to either mutation or environmental influences, such progeny may not, in fact, be
25 identical to the parent cell, but are still included within the scope of the term as used herein.

A host cell can be any prokaryotic (*e.g.*, *E. coli*) or eukaryotic cell (*e.g.*, insect cells, yeast or mammalian cells).

Vector DNA can be introduced into prokaryotic or eukaryotic cells via
30 conventional transformation or transfection techniques. As used herein, the terms "transformation" and "transfection" are intended to refer to a variety of art-recognized techniques for introducing foreign nucleic acid into a host cell, including calcium

phosphate or calcium chloride co-precipitation, DEAE-dextran-mediated transfection, lipofection, or electroporation. Suitable methods for transforming or transfecting host cells can be found in Sambrook, *et al.* (*supra*), and other laboratory manuals.

For stable transfection of mammalian cells, it is known that, depending upon the
5 expression vector and transfection technique used, only a small fraction of cells may integrate the foreign DNA into their genome. In order to identify and select these integrants, a gene that encodes a selectable marker (*e.g.*, for resistance to antibiotics) is generally introduced into the host cells along with the gene of interest. Preferred selectable markers include those which confer resistance to drugs, such as G418,
10 hygromycin and methotrexate. Cells stably transfected with the introduced nucleic acid can be identified by drug selection (*e.g.*, cells that have incorporated the selectable marker gene will survive, while the other cells die).

A host cell of the invention, such as a prokaryotic or eukaryotic host cell in culture, can be used to produce a polypeptide corresponding to a marker of the
15 invention. Accordingly, the invention further provides methods for producing a polypeptide corresponding to a marker of the invention using the host cells of the invention. In one embodiment, the method comprises culturing the host cell of invention (into which a recombinant expression vector encoding a polypeptide of the invention has been introduced) in a suitable medium such that the marker is produced.
20 In another embodiment, the method further comprises isolating the marker polypeptide from the medium or the host cell.

The host cells of the invention can also be used to produce nonhuman transgenic animals. For example, in one embodiment, a host cell of the invention is a fertilized oocyte or an embryonic stem cell into which a sequences encoding a polypeptide
25 corresponding to a marker of the invention have been introduced. Such host cells can then be used to create non-human transgenic animals in which exogenous sequences encoding a marker protein of the invention have been introduced into their genome or homologous recombinant animals in which endogenous gene(s) encoding a polypeptide corresponding to a marker of the invention sequences have been altered. Such animals
30 are useful for studying the function and/or activity of the polypeptide corresponding to the marker and for identifying and/or evaluating modulators of polypeptide activity. As used herein, a "transgenic animal" is a non-human animal, preferably a mammal, more

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preferably a rodent such as a rat or mouse, in which one or more of the cells of the animal includes a transgene. Other examples of transgenic animals include non-human primates, sheep, dogs, cows, goats, chickens, amphibians, etc. A transgene is exogenous DNA which is integrated into the genome of a cell from which a transgenic animal develops and which remains in the genome of the mature animal, thereby directing the expression of an encoded gene product in one or more cell types or tissues of the transgenic animal. As used herein, an "homologous recombinant animal" is a non-human animal, preferably a mammal, more preferably a mouse, in which an endogenous gene has been altered by homologous recombination between the endogenous gene and an exogenous DNA molecule introduced into a cell of the animal, *e.g.*, an embryonic cell of the animal, prior to development of the animal.

A transgenic animal of the invention can be created by introducing a nucleic acid encoding a polypeptide corresponding to a marker of the invention into the male pronuclei of a fertilized oocyte, *e.g.*, by microinjection, retroviral infection, and allowing the oocyte to develop in a pseudopregnant female foster animal. Intronic sequences and polyadenylation signals can also be included in the transgene to increase the efficiency of expression of the transgene. A tissue-specific regulatory sequence(s) can be operably linked to the transgene to direct expression of the polypeptide of the invention to particular cells. Methods for generating transgenic animals via embryo manipulation and microinjection, particularly animals such as mice, have become conventional in the art and are described, for example, in U.S. Patent Nos. 4,736,866 and 4,870,009, U.S. Patent No. 4,873,191 and in Hogan, *Manipulating the Mouse Embryo*, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, N.Y., 1986. Similar methods are used for production of other transgenic animals. A transgenic founder animal can be identified based upon the presence of the transgene in its genome and/or expression of mRNA encoding the transgene in tissues or cells of the animals. A transgenic founder animal can then be used to breed additional animals carrying the transgene. Moreover, transgenic animals carrying the transgene can further be bred to other transgenic animals carrying other transgenes.

To create an homologous recombinant animal, a vector is prepared which contains at least a portion of a gene encoding a polypeptide corresponding to a marker of the invention into which a deletion, addition or substitution has been introduced to

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thereby alter, *e.g.*, functionally disrupt, the gene. In a preferred embodiment, the vector is designed such that, upon homologous recombination, the endogenous gene is functionally disrupted (*i.e.*, no longer encodes a functional protein; also referred to as a "knock out" vector). Alternatively, the vector can be designed such that, upon

5 homologous recombination, the endogenous gene is mutated or otherwise altered but still encodes functional protein (*e.g.*, the upstream regulatory region can be altered to thereby alter the expression of the endogenous protein). In the homologous recombination vector, the altered portion of the gene is flanked at its 5' and 3' ends by additional nucleic acid of the gene to allow for homologous recombination to occur

10 between the exogenous gene carried by the vector and an endogenous gene in an embryonic stem cell. The additional flanking nucleic acid sequences are of sufficient length for successful homologous recombination with the endogenous gene. Typically, several kilobases of flanking DNA (both at the 5' and 3' ends) are included in the vector (see, *e.g.*, Thomas and Capecchi, 1987, *Cell* 51:503 for a description of homologous

15 recombination vectors). The vector is introduced into an embryonic stem cell line (*e.g.*, by electroporation) and cells in which the introduced gene has homologously recombined with the endogenous gene are selected (see, *e.g.*, Li *et al.*, 1992, *Cell* 69:915). The selected cells are then injected into a blastocyst of an animal (*e.g.*, a mouse) to form aggregation chimeras (see, *e.g.*, Bradley, *Teratocarcinomas and*

20 *Embryonic Stem Cells: A Practical Approach*, Robertson, Ed., IRL, Oxford, 1987, pp. 113-152). A chimeric embryo can then be implanted into a suitable pseudopregnant female foster animal and the embryo brought to term. Progeny harboring the homologously recombined DNA in their germ cells can be used to breed animals in which all cells of the animal contain the homologously recombined DNA by germline

25 transmission of the transgene. Methods for constructing homologous recombination vectors and homologous recombinant animals are described further in Bradley (1991) *Current Opinion in Bio/Technology* 2:823-829 and in PCT Publication NOS. WO 90/11354, WO 91/01140, WO 92/0968, and WO 93/04169.

In another embodiment, transgenic non-human animals can be produced which

30 contain selected systems which allow for regulated expression of the transgene. One example of such a system is the *cre/loxP* recombinase system of bacteriophage P1. For a description of the *cre/loxP* recombinase system, see, *e.g.*, Lakso *et al.* (1992) *Proc.*

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Natl. Acad. Sci. USA 89:6232-6236. Another example of a recombinase system is the FLP recombinase system of *Saccharomyces cerevisiae* (O'Gorman *et al.*, 1991, *Science* 251:1351-1355). If a *cre/loxP* recombinase system is used to regulate expression of the transgene, animals containing transgenes encoding both the *Cre* recombinase and a
5 selected protein are required. Such animals can be provided through the construction of "double" transgenic animals, *e.g.*, by mating two transgenic animals, one containing a transgene encoding a selected protein and the other containing a transgene encoding a recombinase.

Clones of the non-human transgenic animals described herein can also be
10 produced according to the methods described in Wilmut *et al.* (1997) *Nature* 385:810-813 and PCT Publication NOS. WO 97/07668 and WO 97/07669.

IV. Pharmaceutical Compositions

The nucleic acid molecules, polypeptides, and antibodies (also referred to herein
15 as "active compounds") corresponding to a marker of the invention can be incorporated into pharmaceutical compositions suitable for administration. Such compositions typically comprise the nucleic acid molecule, protein, or antibody and a pharmaceutically acceptable carrier. As used herein the language "pharmaceutically acceptable carrier" is intended to include any and all solvents, dispersion media,
20 coatings, antibacterial and antifungal agents, isotonic and absorption delaying agents, and the like, compatible with pharmaceutical administration. The use of such media and agents for pharmaceutically active substances is well known in the art. Except insofar as any conventional media or agent is incompatible with the active compound, use thereof in the compositions is contemplated. Supplementary active compounds can also be
25 incorporated into the compositions.

The invention includes methods for preparing pharmaceutical compositions for modulating the expression or activity of a polypeptide or nucleic acid corresponding to a marker of the invention. Such methods comprise formulating a pharmaceutically acceptable carrier with an agent which modulates expression or activity of a polypeptide
30 or nucleic acid corresponding to a marker of the invention. Such compositions can further include additional active agents. Thus, the invention further includes methods for preparing a pharmaceutical composition by formulating a pharmaceutically

acceptable carrier with an agent which modulates expression or activity of a polypeptide or nucleic acid corresponding to a marker of the invention and one or more additional active compounds.

The invention also provides methods (also referred to herein as "screening assays") for identifying modulators, *i.e.*, candidate or test compounds or agents (*e.g.*, peptides, peptidomimetics, peptoids, small molecules or other drugs) which (a) bind to the marker, or (b) have a modulatory (*e.g.*, stimulatory or inhibitory) effect on the activity of the marker or, more specifically, (c) have a modulatory effect on the interactions of the marker with one or more of its natural substrates (*e.g.*, peptide, protein, hormone, co-factor, or nucleic acid), or (d) have a modulatory effect on the expression of the marker. Such assays typically comprise a reaction between the marker and one or more assay components. The other components may be either the test compound itself, or a combination of test compound and a natural binding partner of the marker.

The test compounds of the present invention may be obtained from any available source, including systematic libraries of natural and/or synthetic compounds. Test compounds may also be obtained by any of the numerous approaches in combinatorial library methods known in the art, including: biological libraries; peptoid libraries (libraries of molecules having the functionalities of peptides, but with a novel, non-peptide backbone which are resistant to enzymatic degradation but which nevertheless remain bioactive; see, *e.g.*, Zuckermann *et al.*, 1994, *J. Med. Chem.* 37:2678-85); spatially addressable parallel solid phase or solution phase libraries; synthetic library methods requiring deconvolution; the 'one-bead one-compound' library method; and synthetic library methods using affinity chromatography selection. The biological library and peptoid library approaches are limited to peptide libraries, while the other four approaches are applicable to peptide, non-peptide oligomer or small molecule libraries of compounds (Lam, 1997, *Anticancer Drug Des.* 12:145).

Examples of methods for the synthesis of molecular libraries can be found in the art, for example in: DeWitt *et al.* (1993) *Proc. Natl. Acad. Sci. U.S.A.* 90:6909; Erb *et al.* (1994) *Proc. Natl. Acad. Sci. USA* 91:11422; Zuckermann *et al.* (1994). *J. Med. Chem.* 37:2678; Cho *et al.* (1993) *Science* 261:1303; Carrell *et al.* (1994) *Angew. Chem.*

Int. Ed. Engl. 33:2059; Carell *et al.* (1994) *Angew. Chem. Int. Ed. Engl.* 33:2061; and in Gallop *et al.* (1994) *J. Med. Chem.* 37:1233.

Libraries of compounds may be presented in solution (*e.g.*, Houghten, 1992, *Biotechniques* 13:412-421), or on beads (Lam, 1991, *Nature* 354:82-84), chips (Fodor, 1993, *Nature* 364:555-556), bacteria and/or spores, (Ladner, USP 5,223,409), plasmids (Cull *et al.*, 1992, *Proc Natl Acad Sci USA* 89:1865-1869) or on phage (Scott and Smith, 1990, *Science* 249:386-390; Devlin, 1990, *Science* 249:404-406; Cwirla *et al.*, 1990, *Proc. Natl. Acad. Sci.* 87:6378-6382; Felici, 1991, *J. Mol. Biol.* 222:301-310; Ladner, *supra.*).

10 In one embodiment, the invention provides assays for screening candidate or test compounds which are substrates of a marker or biologically active portion thereof. In another embodiment, the invention provides assays for screening candidate or test compounds which bind to a marker or biologically active portion thereof. Determining the ability of the test compound to directly bind to a marker can be accomplished, for
15 example, by coupling the compound with a radioisotope or enzymatic label such that binding of the compound to the marker can be determined by detecting the labeled marker compound in a complex. For example, compounds (*e.g.*, marker substrates) can be labeled with ^{125}I , ^{35}S , ^{14}C , or ^3H , either directly or indirectly, and the radioisotope detected by direct counting of radioemission or by scintillation counting. Alternatively,
20 assay components can be enzymatically labeled with, for example, horseradish peroxidase, alkaline phosphatase, or luciferase, and the enzymatic label detected by determination of conversion of an appropriate substrate to product.

In another embodiment, the invention provides assays for screening candidate or test compounds which modulate the activity of a marker or a biologically active portion
25 thereof. In all likelihood, the marker can, *in vivo*, interact with one or more molecules, such as but not limited to, peptides, proteins, hormones, cofactors and nucleic acids. For the purposes of this discussion, such cellular and extracellular molecules are referred to herein as "binding partners" or marker "substrate".

One necessary embodiment of the invention in order to facilitate such screening
30 is the use of the marker to identify its natural *in vivo* binding partners. There are many ways to accomplish this which are known to one skilled in the art. One example is the use of the marker protein as "bait protein" in a two-hybrid assay or three-hybrid assay

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(see, *e.g.*, U.S. Patent No. 5,283,317; Zervos *et al.*, 1993, *Cell* 72:223-232; Madura *et al.*, 1993, *J. Biol. Chem.* 268:12046-12054; Bartel *et al.*, 1993, *Biotechniques* 14:920-924; Iwabuchi *et al.*, 1993 *Oncogene* 8:1693-1696; Brent WO94/10300) in order to identify other proteins which bind to or interact with the marker (binding partners) and, therefore, are possibly involved in the natural function of the marker. Such marker binding partners are also likely to be involved in the propagation of signals by the marker or downstream elements of a marker-mediated signaling pathway. Alternatively, such marker binding partners may also be found to be inhibitors of the marker.

The two-hybrid system is based on the modular nature of most transcription factors, which consist of separable DNA-binding and activation domains. Briefly, the assay utilizes two different DNA constructs. In one construct, the gene that encodes a marker protein fused to a gene encoding the DNA binding domain of a known transcription factor (*e.g.*, GAL-4). In the other construct, a DNA sequence, from a library of DNA sequences, that encodes an unidentified protein ("prey" or "sample") is fused to a gene that codes for the activation domain of the known transcription factor. If the "bait" and the "prey" proteins are able to interact, *in vivo*, forming a marker-dependent complex, the DNA-binding and activation domains of the transcription factor are brought into close proximity. This proximity allows transcription of a reporter gene (*e.g.*, LacZ) which is operably linked to a transcriptional regulatory site responsive to the transcription factor. Expression of the reporter gene can be readily detected and cell colonies containing the functional transcription factor can be isolated and used to obtain the cloned gene which encodes the protein which interacts with the marker protein.

In a further embodiment, assays may be devised through the use of the invention for the purpose of identifying compounds which modulate (*e.g.*, affect either positively or negatively) interactions between a marker and its substrates and/or binding partners. Such compounds can include, but are not limited to, molecules such as antibodies, peptides, hormones, oligonucleotides, nucleic acids, and analogs thereof. Such compounds may also be obtained from any available source, including systematic libraries of natural and/or synthetic compounds. The preferred assay components for use in this embodiment is an ovarian cancer marker identified herein, the known binding partner and/or substrate of same, and the test compound. Test compounds can be supplied from any source.

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The basic principle of the assay systems used to identify compounds that interfere with the interaction between the marker and its binding partner involves preparing a reaction mixture containing the marker and its binding partner under conditions and for a time sufficient to allow the two products to interact and bind, thus forming a complex. In order to test an agent for inhibitory activity, the reaction mixture is prepared in the presence and absence of the test compound. The test compound can be initially included in the reaction mixture, or can be added at a time subsequent to the addition of the marker and its binding partner. Control reaction mixtures are incubated without the test compound or with a placebo. The formation of any complexes between the marker and its binding partner is then detected. The formation of a complex in the control reaction, but less or no such formation in the reaction mixture containing the test compound, indicates that the compound interferes with the interaction of the marker and its binding partner. Conversely, the formation of more complex in the presence of compound than in the control reaction indicates that the compound may enhance interaction of the marker and its binding partner.

The assay for compounds that interfere with the interaction of the marker with its binding partner may be conducted in a heterogeneous or homogeneous format. Heterogeneous assays involve anchoring either the marker or its binding partner onto a solid phase and detecting complexes anchored to the solid phase at the end of the reaction. In homogeneous assays, the entire reaction is carried out in a liquid phase. In either approach, the order of addition of reactants can be varied to obtain different information about the compounds being tested. For example, test compounds that interfere with the interaction between the markers and the binding partners (*e.g.*, by competition) can be identified by conducting the reaction in the presence of the test substance, *i.e.*, by adding the test substance to the reaction mixture prior to or simultaneously with the marker and its interactive binding partner. Alternatively, test compounds that disrupt preformed complexes, *e.g.*, compounds with higher binding constants that displace one of the components from the complex, can be tested by adding the test compound to the reaction mixture after complexes have been formed. The various formats are briefly described below.

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In a heterogeneous assay system, either the marker or its binding partner is anchored onto a solid surface or matrix, while the other corresponding non-anchored component may be labeled, either directly or indirectly. In practice, microtitre plates are often utilized for this approach. The anchored species can be immobilized by a number
5 of methods, either non-covalent or covalent, that are typically well known to one who practices the art. Non-covalent attachment can often be accomplished simply by coating the solid surface with a solution of the marker or its binding partner and drying. Alternatively, an immobilized antibody specific for the assay component to be anchored can be used for this purpose. Such surfaces can often be prepared in advance and stored.

10 In related embodiments, a fusion protein can be provided which adds a domain that allows one or both of the assay components to be anchored to a matrix. For example, glutathione-S-transferase/marker fusion proteins or glutathione-S-transferase/binding partner can be adsorbed onto glutathione sepharose beads (Sigma Chemical, St. Louis, MO) or glutathione derivatized microtiter plates, which are then
15 combined with the test compound or the test compound and either the non-adsorbed marker or its binding partner, and the mixture incubated under conditions conducive to complex formation (*e.g.*, physiological conditions). Following incubation, the beads or microtiter plate wells are washed to remove any unbound assay components, the immobilized complex assessed either directly or indirectly, for example, as described
20 above. Alternatively, the complexes can be dissociated from the matrix, and the level of marker binding or activity determined using standard techniques.

Other techniques for immobilizing proteins on matrices can also be used in the screening assays of the invention. For example, either a marker or a marker binding partner can be immobilized utilizing conjugation of biotin and streptavidin. Biotinylated
25 marker protein or target molecules can be prepared from biotin-NHS (N-hydroxy-succinimide) using techniques known in the art (*e.g.*, biotinylation kit, Pierce Chemicals, Rockford, IL), and immobilized in the wells of streptavidin-coated 96 well plates (Pierce Chemical). In certain embodiments, the protein-immobilized surfaces can be prepared in advance and stored.

30 In order to conduct the assay, the corresponding partner of the immobilized assay component is exposed to the coated surface with or without the test compound. After the reaction is complete, unreacted assay components are removed (*e.g.*, by washing)

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and any complexes formed will remain immobilized on the solid surface. The detection of complexes anchored on the solid surface can be accomplished in a number of ways. Where the non-immobilized component is pre-labeled, the detection of label immobilized on the surface indicates that complexes were formed. Where the non-immobilized component is not pre-labeled, an indirect label can be used to detect complexes anchored on the surface; *e.g.*, using a labeled antibody specific for the initially non-immobilized species (the antibody, in turn, can be directly labeled or indirectly labeled with, *e.g.*, a labeled anti-Ig antibody). Depending upon the order of addition of reaction components, test compounds which modulate (inhibit or enhance) complex formation or which disrupt preformed complexes can be detected.

In an alternate embodiment of the invention, a homogeneous assay may be used. This is typically a reaction, analogous to those mentioned above, which is conducted in a liquid phase in the presence or absence of the test compound. The formed complexes are then separated from unreacted components, and the amount of complex formed is determined. As mentioned for heterogeneous assay systems, the order of addition of reactants to the liquid phase can yield information about which test compounds modulate (inhibit or enhance) complex formation and which disrupt preformed complexes.

In such a homogeneous assay, the reaction products may be separated from unreacted assay components by any of a number of standard techniques, including but not limited to: differential centrifugation, chromatography, electrophoresis and immunoprecipitation. In differential centrifugation, complexes of molecules may be separated from uncomplexed molecules through a series of centrifugal steps, due to the different sedimentation equilibria of complexes based on their different sizes and densities (see, for example, Rivas, G., and Minton, A.P., *Trends Biochem Sci* 1993 Aug;18(8):284-7). Standard chromatographic techniques may also be utilized to separate complexed molecules from uncomplexed ones. For example, gel filtration chromatography separates molecules based on size, and through the utilization of an appropriate gel filtration resin in a column format, for example, the relatively larger complex may be separated from the relatively smaller uncomplexed components. Similarly, the relatively different charge properties of the complex as compared to the uncomplexed molecules may be exploited to differentially separate the complex from

the remaining individual reactants, for example through the use of ion-exchange chromatography resins. Such resins and chromatographic techniques are well known to one skilled in the art (see, *e.g.*, Heegaard, 1998, *J Mol. Recognit.* 11:141-148; Hage and Tweed, 1997, *J. Chromatogr. B. Biomed. Sci. Appl.*, 699:499-525). Gel electrophoresis
5 may also be employed to separate complexed molecules from unbound species (see, *e.g.*, Ausubel *et al* (eds.), In: Current Protocols in Molecular Biology, J. Wiley & Sons, New York, 1999). In this technique, protein or nucleic acid complexes are separated based on size or charge, for example. In order to maintain the binding interaction during the electrophoretic process, nondenaturing gels in the absence of reducing agent are
10 typically preferred, but conditions appropriate to the particular interactants will be well known to one skilled in the art. Immunoprecipitation is another common technique utilized for the isolation of a protein-protein complex from solution (see, *e.g.*, Ausubel *et al* (eds.), In: Current Protocols in Molecular Biology, J. Wiley & Sons, New York, 1999). In this technique, all proteins binding to an antibody specific to one of the
15 binding molecules are precipitated from solution by conjugating the antibody to a polymer bead that may be readily collected by centrifugation. The bound assay components are released from the beads (through a specific proteolysis event or other technique well known in the art which will not disturb the protein-protein interaction in the complex), and a second immunoprecipitation step is performed, this time utilizing
20 antibodies specific for the correspondingly different interacting assay component. In this manner, only formed complexes should remain attached to the beads. Variations in complex formation in both the presence and the absence of a test compound can be compared, thus offering information about the ability of the compound to modulate interactions between the marker and its binding partner.

25 Also within the scope of the present invention are methods for direct detection of interactions between the marker and its natural binding partner and/or a test compound in a homogeneous or heterogeneous assay system without further sample manipulation. For example, the technique of fluorescence energy transfer may be utilized (see, *e.g.*, Lakowicz *et al*, U.S. Patent No. 5,631,169; Stavrianopoulos *et al*, U.S. Patent No.
30 4,868,103). Generally, this technique involves the addition of a fluorophore label on a first 'donor' molecule (*e.g.*, marker or test compound) such that its emitted fluorescent energy will be absorbed by a fluorescent label on a second, 'acceptor' molecule (*e.g.*,

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marker or test compound), which in turn is able to fluoresce due to the absorbed energy. Alternately, the 'donor' protein molecule may simply utilize the natural fluorescent energy of tryptophan residues. Labels are chosen that emit different wavelengths of light, such that the 'acceptor' molecule label may be differentiated from that of the 'donor'. Since the efficiency of energy transfer between the labels is related to the distance separating the molecules, spatial relationships between the molecules can be assessed. In a situation in which binding occurs between the molecules, the fluorescent emission of the 'acceptor' molecule label in the assay should be maximal. An FET binding event can be conveniently measured through standard fluorometric detection means well known in the art (e.g., using a fluorimeter). A test substance which either enhances or hinders participation of one of the species in the preformed complex will result in the generation of a signal variant to that of background. In this way, test substances that modulate interactions between a marker and its binding partner can be identified in controlled assays.

In another embodiment, modulators of marker expression are identified in a method wherein a cell is contacted with a candidate compound and the expression of mRNA or protein, corresponding to a marker in the cell, is determined. The level of expression of mRNA or protein in the presence of the candidate compound is compared to the level of expression of mRNA or protein in the absence of the candidate compound. The candidate compound can then be identified as a modulator of marker expression based on this comparison. For example, when expression of marker mRNA or protein is greater (statistically significantly greater) in the presence of the candidate compound than in its absence, the candidate compound is identified as a stimulator of marker mRNA or protein expression. Conversely, when expression of marker mRNA or protein is less (statistically significantly less) in the presence of the candidate compound than in its absence, the candidate compound is identified as an inhibitor of marker mRNA or protein expression. The level of marker mRNA or protein expression in the cells can be determined by methods described herein for detecting marker mRNA or protein.

In another aspect, the invention pertains to a combination of two or more of the assays described herein. For example, a modulating agent can be identified using a cell-based or a cell free assay, and the ability of the agent to modulate the activity of a

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marker protein can be further confirmed *in vivo*, *e.g.*, in a whole animal model for cellular transformation and/or tumorigenesis.

This invention further pertains to novel agents identified by the above-described screening assays. Accordingly, it is within the scope of this invention to further use an agent identified as described herein in an appropriate animal model. For example, an agent identified as described herein (*e.g.*, an marker modulating agent, an antisense marker nucleic acid molecule, an marker-specific antibody, or an marker-binding partner) can be used in an animal model to determine the efficacy, toxicity, or side effects of treatment with such an agent. Alternatively, an agent identified as described herein can be used in an animal model to determine the mechanism of action of such an agent. Furthermore, this invention pertains to uses of novel agents identified by the above-described screening assays for treatments as described herein.

It is understood that appropriate doses of small molecule agents and protein or polypeptide agents depends upon a number of factors within the knowledge of the ordinarily skilled physician, veterinarian, or researcher. The dose(s) of these agents will vary, for example, depending upon the identity, size, and condition of the subject or sample being treated, further depending upon the route by which the composition is to be administered, if applicable, and the effect which the practitioner desires the agent to have upon the nucleic acid or polypeptide of the invention. Exemplary doses of a small molecule include milligram or microgram amounts per kilogram of subject or sample weight (*e.g.* about 1 microgram per kilogram to about 500 milligrams per kilogram, about 100 micrograms per kilogram to about 5 milligrams per kilogram, or about 1 microgram per kilogram to about 50 micrograms per kilogram). Exemplary doses of a protein or polypeptide include gram, milligram or microgram amounts per kilogram of subject or sample weight (*e.g.* about 1 microgram per kilogram to about 5 grams per kilogram, about 100 micrograms per kilogram to about 500 milligrams per kilogram, or about 1 milligram per kilogram to about 50 milligrams per kilogram). It is furthermore understood that appropriate doses of one of these agents depend upon the potency of the agent with respect to the expression or activity to be modulated. Such appropriate doses can be determined using the assays described herein. When one or more of these agents is to be administered to an animal (*e.g.* a human) in order to modulate expression or activity of a polypeptide or nucleic acid of the invention, a physician, veterinarian, or

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researcher can, for example, prescribe a relatively low dose at first, subsequently increasing the dose until an appropriate response is obtained. In addition, it is understood that the specific dose level for any particular animal subject will depend upon a variety of factors including the activity of the specific agent employed, the age, 5 body weight, general health, gender, and diet of the subject, the time of administration, the route of administration, the rate of excretion, any drug combination, and the degree of expression or activity to be modulated.

A pharmaceutical composition of the invention is formulated to be compatible with its intended route of administration. Examples of routes of administration include 10 parenteral, *e.g.*, intravenous, intradermal, subcutaneous, oral (*e.g.*, inhalation), transdermal (topical), transmucosal, and rectal administration. Solutions or suspensions used for parenteral, intradermal, or subcutaneous application can include the following components: a sterile diluent such as water for injection, saline solution, fixed oils, polyethylene glycols, glycerine, propylene glycol or other synthetic solvents; 15 antibacterial agents such as benzyl alcohol or methyl parabens; antioxidants such as ascorbic acid or sodium bisulfite; chelating agents such as ethylenediamine-tetraacetic acid; buffers such as acetates, citrates or phosphates and agents for the adjustment of tonicity such as sodium chloride or dextrose. pH can be adjusted with acids or bases, such as hydrochloric acid or sodium hydroxide. The parenteral preparation can be 20 enclosed in ampules, disposable syringes or multiple dose vials made of glass or plastic.

Pharmaceutical compositions suitable for injectable use include sterile aqueous solutions (where water soluble) or dispersions and sterile powders for the extemporaneous preparation of sterile injectable solutions or dispersions. For intravenous administration, suitable carriers include physiological saline, bacteriostatic 25 water, Cremophor EL (BASF; Parsippany, NJ) or phosphate buffered saline (PBS). In all cases, the composition must be sterile and should be fluid to the extent that easy syringability exists. It must be stable under the conditions of manufacture and storage and must be preserved against the contaminating action of microorganisms such as bacteria and fungi. The carrier can be a solvent or dispersion medium containing, for 30 example, water, ethanol, polyol (for example, glycerol, propylene glycol, and liquid polyethylene glycol, and the like), and suitable mixtures thereof. The proper fluidity can be maintained, for example, by the use of a coating such as lecithin, by the maintenance

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of the required particle size in the case of dispersion and by the use of surfactants. Prevention of the action of microorganisms can be achieved by various antibacterial and antifungal agents, for example, parabens, chlorobutanol, phenol, ascorbic acid, thimerosal, and the like. In many cases, it will be preferable to include isotonic agents, 5 for example, sugars, polyalcohols such as mannitol, sorbitol, or sodium chloride in the composition. Prolonged absorption of the injectable compositions can be brought about by including in the composition an agent which delays absorption, for example, aluminum monostearate and gelatin.

Sterile injectable solutions can be prepared by incorporating the active 10 compound (*e.g.*, a polypeptide or antibody) in the required amount in an appropriate solvent with one or a combination of ingredients enumerated above, as required, followed by filtered sterilization. Generally, dispersions are prepared by incorporating the active compound into a sterile vehicle which contains a basic dispersion medium, and then incorporating the required other ingredients from those enumerated above. In 15 the case of sterile powders for the preparation of sterile injectable solutions, the preferred methods of preparation are vacuum drying and freeze-drying which yields a powder of the active ingredient plus any additional desired ingredient from a previously sterile-filtered solution thereof.

Oral compositions generally include an inert diluent or an edible carrier. They 20 can be enclosed in gelatin capsules or compressed into tablets. For the purpose of oral therapeutic administration, the active compound can be incorporated with excipients and used in the form of tablets, troches, or capsules. Oral compositions can also be prepared using a fluid carrier for use as a mouthwash, wherein the compound in the fluid carrier is applied orally and swished and expectorated or swallowed.

25 Pharmaceutically compatible binding agents, and/or adjuvant materials can be included as part of the composition. The tablets, pills, capsules, troches, and the like can contain any of the following ingredients, or compounds of a similar nature: a binder such as microcrystalline cellulose, gum tragacanth or gelatin; an excipient such as starch or lactose, a disintegrating agent such as alginic acid, Primogel, or corn starch; a 30 lubricant such as magnesium stearate or Sterotes; a glidant such as colloidal silicon dioxide; a sweetening agent such as sucrose or saccharin; or a flavoring agent such as peppermint, methyl salicylate, or orange flavoring.

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For administration by inhalation, the compounds are delivered in the form of an aerosol spray from a pressurized container or dispenser which contains a suitable propellant, e.g., a gas such as carbon dioxide, or a nebulizer.

Systemic administration can also be by transmucosal or transdermal means. For
5 transmucosal or transdermal administration, penetrants appropriate to the barrier to be permeated are used in the formulation. Such penetrants are generally known in the art, and include, for example, for transmucosal administration, detergents, bile salts, and fusidic acid derivatives. Transmucosal administration can be accomplished through the use of nasal sprays or suppositories. For transdermal administration, the active
10 compounds are formulated into ointments, salves, gels, or creams as generally known in the art.

The compounds can also be prepared in the form of suppositories (e.g., with conventional suppository bases such as cocoa butter and other glycerides) or retention enemas for rectal delivery.

15 In one embodiment, the active compounds are prepared with carriers that will protect the compound against rapid elimination from the body, such as a controlled release formulation, including implants and microencapsulated delivery systems. Biodegradable, biocompatible polymers can be used, such as ethylene vinyl acetate, polyanhydrides, polyglycolic acid, collagen, polyorthoesters, and polylactic acid.
20 Methods for preparation of such formulations will be apparent to those skilled in the art. The materials can also be obtained commercially from Alza Corporation and Nova Pharmaceuticals, Inc. Liposomal suspensions (including liposomes having monoclonal antibodies incorporated therein or thereon) can also be used as pharmaceutically acceptable carriers. These can be prepared according to methods known to those skilled
25 in the art, for example, as described in U.S. Patent No. 4,522,811.

It is especially advantageous to formulate oral or parenteral compositions in dosage unit form for ease of administration and uniformity of dosage. Dosage unit form as used herein refers to physically discrete units suited as unitary dosages for the subject to be treated; each unit containing a predetermined quantity of active compound
30 calculated to produce the desired therapeutic effect in association with the required pharmaceutical carrier. The specification for the dosage unit forms of the invention are dictated by and directly dependent on the unique characteristics of the active compound

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and the particular therapeutic effect to be achieved, and the limitations inherent in the art of compounding such an active compound for the treatment of individuals.

For antibodies, the preferred dosage is 0.1 mg/kg to 100 mg/kg of body weight (generally 10 mg/kg to 20 mg/kg). If the antibody is to act in the brain, a dosage of 50 mg/kg to 100 mg/kg is usually appropriate. Generally, partially human antibodies and fully human antibodies have a longer half-life within the human body than other antibodies. Accordingly, lower dosages and less frequent administration is often possible. Modifications such as lipidation can be used to stabilize antibodies and to enhance uptake and tissue penetration (e.g., into the ovarian epithelium). A method for lipidation of antibodies is described by Cruikshank *et al.* (1997) *J. Acquired Immune Deficiency Syndromes and Human Retrovirology* 14:193.

The nucleic acid molecules corresponding to a marker of the invention can be inserted into vectors and used as gene therapy vectors. Gene therapy vectors can be delivered to a subject by, for example, intravenous injection, local administration (U.S. Patent 5,328,470), or by stereotactic injection (see, e.g., Chen *et al.*, 1994, *Proc. Natl. Acad. Sci. USA* 91:3054-3057). The pharmaceutical preparation of the gene therapy vector can include the gene therapy vector in an acceptable diluent, or can comprise a slow release matrix in which the gene delivery vehicle is imbedded. Alternatively, where the complete gene delivery vector can be produced intact from recombinant cells, e.g. retroviral vectors, the pharmaceutical preparation can include one or more cells which produce the gene delivery system.

The pharmaceutical compositions can be included in a container, pack, or dispenser together with instructions for administration.

25 V. Predictive Medicine

The present invention pertains to the field of predictive medicine in which diagnostic assays, prognostic assays, pharmacogenomics, and monitoring clinical trails are used for prognostic (predictive) purposes to thereby treat an individual prophylactically. Accordingly, one aspect of the present invention relates to diagnostic assays for determining the level of expression of polypeptides or nucleic acids corresponding to one or more markers of the invention, in order to determine whether an individual is at risk of developing ovarian cancer. Such assays can be used for

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prognostic or predictive purposes to thereby prophylactically treat an individual prior to the onset of the cancer.

Yet another aspect of the invention pertains to monitoring the influence of agents (e.g., drugs or other compounds administered either to inhibit ovarian cancer or to treat
5 or prevent any other disorder {i.e. in order to understand any ovarian carcinogenic effects that such treatment may have}) on the expression or activity of a marker of the invention in clinical trials. These and other agents are described in further detail in the following sections.

10 A. Diagnostic Assays

An exemplary method for detecting the presence or absence of a polypeptide or nucleic acid corresponding to a marker of the invention in a biological sample involves obtaining a biological sample (e.g. an ovary-associated body fluid) from a test subject and contacting the biological sample with a compound or an agent capable of detecting
15 the polypeptide or nucleic acid (e.g., mRNA, genomic DNA, or cDNA). The detection methods of the invention can thus be used to detect mRNA, protein, cDNA, or genomic DNA, for example, in a biological sample *in vitro* as well as *in vivo*. For example, *in vitro* techniques for detection of mRNA include Northern hybridizations and *in situ* hybridizations. *In vitro* techniques for detection of a polypeptide corresponding to a
20 marker of the invention include enzyme linked immunosorbent assays (ELISAs), Western blots, immunoprecipitations and immunofluorescence. *In vitro* techniques for detection of genomic DNA include Southern hybridizations. Furthermore, *in vivo* techniques for detection of a polypeptide corresponding to a marker of the invention include introducing into a subject a labeled antibody directed against the polypeptide.
25 For example, the antibody can be labeled with a radioactive marker whose presence and location in a subject can be detected by standard imaging techniques.

A general principle of such diagnostic and prognostic assays involves preparing a sample or reaction mixture that may contain a marker, and a probe, under appropriate conditions and for a time sufficient to allow the marker and probe to interact and bind,
30 thus forming a complex that can be removed and/or detected in the reaction mixture. These assays can be conducted in a variety of ways.

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For example, one method to conduct such an assay would involve anchoring the marker or probe onto a solid phase support, also referred to as a substrate, and detecting target marker/probe complexes anchored on the solid phase at the end of the reaction.

In one embodiment of such a method, a sample from a subject, which is to be assayed
5 for presence and/or concentration of marker, can be anchored onto a carrier or solid phase support. In another embodiment, the reverse situation is possible, in which the probe can be anchored to a solid phase and a sample from a subject can be allowed to react as an unanchored component of the assay.

There are many established methods for anchoring assay components to a solid
10 phase. These include, without limitation, marker or probe molecules which are immobilized through conjugation of biotin and streptavidin. Such biotinylated assay components can be prepared from biotin-NHS (N-hydroxy-succinimide) using techniques known in the art (*e.g.*, biotinylation kit, Pierce Chemicals, Rockford, IL), and immobilized in the wells of streptavidin-coated 96 well plates (Pierce Chemical). In
15 certain embodiments, the surfaces with immobilized assay components can be prepared in advance and stored.

Other suitable carriers or solid phase supports for such assays include any material capable of binding the class of molecule to which the marker or probe belongs. Well-known supports or carriers include, but are not limited to, glass, polystyrene,
20 nylon, polypropylene, nylon, polyethylene, dextran, amylases, natural and modified celluloses, polyacrylamides, gabbros, and magnetite.

In order to conduct assays with the above mentioned approaches, the non-immobilized component is added to the solid phase upon which the second component is anchored. After the reaction is complete, uncomplexed components may be removed
25 (*e.g.*, by washing) under conditions such that any complexes formed will remain immobilized upon the solid phase. The detection of marker/probe complexes anchored to the solid phase can be accomplished in a number of methods outlined herein.

In a preferred embodiment, the probe, when it is the unanchored assay component, can be labeled for the purpose of detection and readout of the assay, either
30 directly or indirectly, with detectable labels discussed herein and which are well-known to one skilled in the art.

It is also possible to directly detect marker/probe complex formation without further manipulation or labeling of either component (marker or probe), for example by utilizing the technique of fluorescence energy transfer (see, for example, Lakowicz *et al.*, U.S. Patent No. 5,631,169; Stavrianopoulos, *et al.*, U.S. Patent No. 4,868,103). A fluorophore label on the first, 'donor' molecule is selected such that, upon excitation with incident light of appropriate wavelength, its emitted fluorescent energy will be absorbed by a fluorescent label on a second 'acceptor' molecule, which in turn is able to fluoresce due to the absorbed energy. Alternately, the 'donor' protein molecule may simply utilize the natural fluorescent energy of tryptophan residues. Labels are chosen that emit different wavelengths of light, such that the 'acceptor' molecule label may be differentiated from that of the 'donor'. Since the efficiency of energy transfer between the labels is related to the distance separating the molecules, spatial relationships between the molecules can be assessed. In a situation in which binding occurs between the molecules, the fluorescent emission of the 'acceptor' molecule label in the assay should be maximal. An FET binding event can be conveniently measured through standard fluorometric detection means well known in the art (*e.g.*, using a fluorimeter).

In another embodiment, determination of the ability of a probe to recognize a marker can be accomplished without labeling either assay component (probe or marker) by utilizing a technology such as real-time Biomolecular Interaction Analysis (BIA) (see, *e.g.*, Sjolander, S. and Urbaniczky, C., 1991, *Anal. Chem.* 63:2338-2345 and Szabo *et al.*, 1995, *Curr. Opin. Struct. Biol.* 5:699-705). As used herein, "BIA" or "surface plasmon resonance" is a technology for studying biospecific interactions in real time, without labeling any of the interactants (*e.g.*, BIAcore). Changes in the mass at the binding surface (indicative of a binding event) result in alterations of the refractive index of light near the surface (the optical phenomenon of surface plasmon resonance (SPR)), resulting in a detectable signal which can be used as an indication of real-time reactions between biological molecules.

Alternatively, in another embodiment, analogous diagnostic and prognostic assays can be conducted with marker and probe as solutes in a liquid phase. In such an assay, the complexed marker and probe are separated from uncomplexed components by any of a number of standard techniques, including but not limited to: differential centrifugation, chromatography, electrophoresis and immunoprecipitation. In

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differential centrifugation, marker/probe complexes may be separated from uncomplexed assay components through a series of centrifugal steps, due to the different sedimentation equilibria of complexes based on their different sizes and densities (see, for example, Rivas, G., and Minton, A.P., 1993, *Trends Biochem Sci.* 18(8):284-7).

5 Standard chromatographic techniques may also be utilized to separate complexed molecules from uncomplexed ones. For example, gel filtration chromatography separates molecules based on size, and through the utilization of an appropriate gel filtration resin in a column format, for example, the relatively larger complex may be separated from the relatively smaller uncomplexed components. Similarly, the

10 relatively different charge properties of the marker/probe complex as compared to the uncomplexed components may be exploited to differentiate the complex from uncomplexed components, for example through the utilization of ion-exchange chromatography resins. Such resins and chromatographic techniques are well known to one skilled in the art (see, e.g., Heegaard, N.H., 1998, *J. Mol. Recognit.* Winter 11(1-6):141-8; Hage, D.S., and Tweed, S.A. *J Chromatogr B Biomed Sci Appl* 1997 Oct 15 10;699(1-2):499-525). Gel electrophoresis may also be employed to separate complexed assay components from unbound components (see, e.g., Ausubel *et al.*, ed., *Current Protocols in Molecular Biology*, John Wiley & Sons, New York, 1987-1999). In this technique, protein or nucleic acid complexes are separated based on size or

20 charge, for example. In order to maintain the binding interaction during the electrophoretic process, non-denaturing gel matrix materials and conditions in the absence of reducing agent are typically preferred. Appropriate conditions to the particular assay and components thereof will be well known to one skilled in the art.

In a particular embodiment, the level of mRNA corresponding to the marker can

25 be determined both by *in situ* and by *in vitro* formats in a biological sample using methods known in the art. The term "biological sample" is intended to include tissues, cells, biological fluids and isolates thereof, isolated from a subject, as well as tissues, cells and fluids present within a subject. Many expression detection methods use isolated RNA. For *in vitro* methods, any RNA isolation technique that does not select

30 against the isolation of mRNA can be utilized for the purification of RNA from ovarian cells (see, e.g., Ausubel *et al.*, ed., *Current Protocols in Molecular Biology*, John Wiley & Sons, New York 1987-1999). Additionally, large numbers of tissue samples can

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readily be processed using techniques well known to those of skill in the art, such as, for example, the single-step RNA isolation process of Chomczynski (1989, U.S. Patent No. 4,843,155).

The isolated mRNA can be used in hybridization or amplification assays that
5 include, but are not limited to, Southern or Northern analyses, polymerase chain reaction analyses and probe arrays. One preferred diagnostic method for the detection of mRNA levels involves contacting the isolated mRNA with a nucleic acid molecule (probe) that can hybridize to the mRNA encoded by the gene being detected. The nucleic acid probe can be, for example, a full-length cDNA, or a portion thereof, such as an oligonucleotide
10 of at least 7, 15, 30, 50, 100, 250 or 500 nucleotides in length and sufficient to specifically hybridize under stringent conditions to a mRNA or genomic DNA encoding a marker of the present invention. Other suitable probes for use in the diagnostic assays of the invention are described herein. Hybridization of an mRNA with the probe indicates that the marker in question is being expressed.

15 In one format, the mRNA is immobilized on a solid surface and contacted with a probe, for example by running the isolated mRNA on an agarose gel and transferring the mRNA from the gel to a membrane, such as nitrocellulose. In an alternative format, the probe(s) are immobilized on a solid surface and the mRNA is contacted with the probe(s), for example, in an Affymetrix gene chip array. A skilled artisan can readily
20 adapt known mRNA detection methods for use in detecting the level of mRNA encoded by the markers of the present invention.

An alternative method for determining the level of mRNA corresponding to a marker of the present invention in a sample involves the process of nucleic acid amplification, e.g., by rtPCR (the experimental embodiment set forth in Mullis, 1987,
25 U.S. Patent No. 4,683,202), ligase chain reaction (Barany, 1991, *Proc. Natl. Acad. Sci. USA*, 88:189-193), self sustained sequence replication (Guatelli *et al.*, 1990, *Proc. Natl. Acad. Sci. USA* 87:1874-1878), transcriptional amplification system (Kwoh *et al.*, 1989, *Proc. Natl. Acad. Sci. USA* 86:1173-1177), Q-Beta Replicase (Lizardi *et al.*, 1988, *Bio/Technology* 6:1197), rolling circle replication (Lizardi *et al.*, U.S. Patent No.
30 5,854,033) or any other nucleic acid amplification method, followed by the detection of the amplified molecules using techniques well known to those of skill in the art. These detection schemes are especially useful for the detection of nucleic acid molecules if

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such molecules are present in very low numbers. As used herein, amplification primers are defined as being a pair of nucleic acid molecules that can anneal to 5' or 3' regions of a gene (plus and minus strands, respectively, or vice-versa) and contain a short region in between. In general, amplification primers are from about 10 to 30 nucleotides in
5 length and flank a region from about 50 to 200 nucleotides in length. Under appropriate conditions and with appropriate reagents, such primers permit the amplification of a nucleic acid molecule comprising the nucleotide sequence flanked by the primers.

For *in situ* methods, mRNA does not need to be isolated from the ovarian cells prior to detection. In such methods, a cell or tissue sample is prepared/processed using
10 known histological methods. The sample is then immobilized on a support, typically a glass slide, and then contacted with a probe that can hybridize to mRNA that encodes the marker.

As an alternative to making determinations based on the absolute expression level of the marker, determinations may be based on the normalized expression level of
15 the marker. Expression levels are normalized by correcting the absolute expression level of a marker by comparing its expression to the expression of a gene that is not a marker, *e.g.*, a housekeeping gene that is constitutively expressed. Suitable genes for normalization include housekeeping genes such as the actin gene, or epithelial cell-specific genes. This normalization allows the comparison of the expression level in one
20 sample, *e.g.*, a patient sample, to another sample, *e.g.*, a non-ovarian cancer sample, or between samples from different sources.

Alternatively, the expression level can be provided as a relative expression level. To determine a relative expression level of a marker, the level of expression of the marker is determined for 10 or more samples of normal versus cancer cell isolates,
25 preferably 50 or more samples, prior to the determination of the expression level for the sample in question. The mean expression level of each of the genes assayed in the larger number of samples is determined and this is used as a baseline expression level for the marker. The expression level of the marker determined for the test sample (absolute level of expression) is then divided by the mean expression value obtained for
30 that marker. This provides a relative expression level.

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Preferably, the samples used in the baseline determination will be from ovarian cancer or from non-ovarian cancer cells of ovarian tissue. The choice of the cell source is dependent on the use of the relative expression level. Using expression found in normal tissues as a mean expression score aids in validating whether the marker assayed is ovarian specific (versus normal cells). In addition, as more data is accumulated, the mean expression value can be revised, providing improved relative expression values based on accumulated data. Expression data from ovarian cells provides a means for grading the severity of the ovarian cancer state.

In another embodiment of the present invention, a polypeptide corresponding to a marker is detected. A preferred agent for detecting a polypeptide of the invention is an antibody capable of binding to a polypeptide corresponding to a marker of the invention, preferably an antibody with a detectable label. Antibodies can be polyclonal, or more preferably, monoclonal. An intact antibody, or a fragment thereof (e.g., Fab or F(ab')₂) can be used. The term "labeled", with regard to the probe or antibody, is intended to encompass direct labeling of the probe or antibody by coupling (i.e., physically linking) a detectable substance to the probe or antibody, as well as indirect labeling of the probe or antibody by reactivity with another reagent that is directly labeled. Examples of indirect labeling include detection of a primary antibody using a fluorescently labeled secondary antibody and end-labeling of a DNA probe with biotin such that it can be detected with fluorescently labeled streptavidin.

Proteins from ovarian cells can be isolated using techniques that are well known to those of skill in the art. The protein isolation methods employed can, for example, be such as those described in Harlow and Lane (Harlow and Lane, 1988, *Antibodies: A Laboratory Manual*, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, New York).

A variety of formats can be employed to determine whether a sample contains a protein that binds to a given antibody. Examples of such formats include, but are not limited to, enzyme immunoassay (EIA), radioimmunoassay (RIA), Western blot analysis and enzyme linked immunoabsorbant assay (ELISA). A skilled artisan can readily adapt known protein/antibody detection methods for use in determining whether ovarian cells express a marker of the present invention.

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In one format, antibodies, or antibody fragments, can be used in methods such as Western blots or immunofluorescence techniques to detect the expressed proteins. In such uses, it is generally preferable to immobilize either the antibody or proteins on a solid support. Suitable solid phase supports or carriers include any support capable of binding an antigen or an antibody. Well-known supports or carriers include glass, polystyrene, polypropylene, polyethylene, dextran, nylon, amylases, natural and modified celluloses, polyacrylamides, gabbros, and magnetite.

One skilled in the art will know many other suitable carriers for binding antibody or antigen, and will be able to adapt such support for use with the present invention. For example, protein isolated from ovarian cells can be run on a polyacrylamide gel electrophoresis and immobilized onto a solid phase support such as nitrocellulose. The support can then be washed with suitable buffers followed by treatment with the detectably labeled antibody. The solid phase support can then be washed with the buffer a second time to remove unbound antibody. The amount of bound label on the solid support can then be detected by conventional means.

The invention also encompasses kits for detecting the presence of a polypeptide or nucleic acid corresponding to a marker of the invention in a biological sample (*e.g.* an ovary-associated body fluid such as a urine sample). Such kits can be used to determine if a subject is suffering from or is at increased risk of developing ovarian cancer. For example, the kit can comprise a labeled compound or agent capable of detecting a polypeptide or an mRNA encoding a polypeptide corresponding to a marker of the invention in a biological sample and means for determining the amount of the polypeptide or mRNA in the sample (*e.g.*, an antibody which binds the polypeptide or an oligonucleotide probe which binds to DNA or mRNA encoding the polypeptide). Kits can also include instructions for interpreting the results obtained using the kit.

For antibody-based kits, the kit can comprise, for example: (1) a first antibody (*e.g.*, attached to a solid support) which binds to a polypeptide corresponding to a marker of the invention; and, optionally, (2) a second, different antibody which binds to either the polypeptide or the first antibody and is conjugated to a detectable label.

For oligonucleotide-based kits, the kit can comprise, for example: (1) an oligonucleotide, *e.g.*, a detectably labeled oligonucleotide, which hybridizes to a nucleic acid sequence encoding a polypeptide corresponding to a marker of the invention or (2)

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a pair of primers useful for amplifying a nucleic acid molecule corresponding to a marker of the invention. The kit can also comprise, *e.g.*, a buffering agent, a preservative, or a protein stabilizing agent. The kit can further comprise components necessary for detecting the detectable label (*e.g.*, an enzyme or a substrate). The kit can
5 also contain a control sample or a series of control samples which can be assayed and compared to the test sample. Each component of the kit can be enclosed within an individual container and all of the various containers can be within a single package, along with instructions for interpreting the results of the assays performed using the kit.

10 B. Pharmacogenomics

Agents or modulators which have a stimulatory or inhibitory effect on expression of a marker of the invention can be administered to individuals to treat (prophylactically or therapeutically) ovarian cancer in the patient. In conjunction with such treatment, the pharmacogenomics (*i.e.*, the study of the relationship between an individual's genotype
15 and that individual's response to a foreign compound or drug) of the individual may be considered. Differences in metabolism of therapeutics can lead to severe toxicity or therapeutic failure by altering the relation between dose and blood concentration of the pharmacologically active drug. Thus, the pharmacogenomics of the individual permits the selection of effective agents (*e.g.*, drugs) for prophylactic or therapeutic treatments
20 based on a consideration of the individual's genotype. Such pharmacogenomics can further be used to determine appropriate dosages and therapeutic regimens. Accordingly, the level of expression of a marker of the invention in an individual can be determined to thereby select appropriate agent(s) for therapeutic or prophylactic treatment of the individual.

25 Pharmacogenomics deals with clinically significant variations in the response to drugs due to altered drug disposition and abnormal action in affected persons. See, *e.g.*, Linder (1997) *Clin. Chem.* 43(2):254-266. In general, two types of pharmacogenetic conditions can be differentiated. Genetic conditions transmitted as a single factor altering the way drugs act on the body are referred to as "altered drug action." Genetic
30 conditions transmitted as single factors altering the way the body acts on drugs are referred to as "altered drug metabolism". These pharmacogenetic conditions can occur either as rare defects or as polymorphisms. For example, glucose-6-phosphate

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dehydrogenase (G6PD) deficiency is a common inherited enzymopathy in which the main clinical complication is hemolysis after ingestion of oxidant drugs (anti-malarials, sulfonamides, analgesics, nitrofurans) and consumption of fava beans.

As an illustrative embodiment, the activity of drug metabolizing enzymes is a major determinant of both the intensity and duration of drug action. The discovery of genetic polymorphisms of drug metabolizing enzymes (*e.g.*, N-acetyltransferase 2 (NAT 2) and cytochrome P450 enzymes CYP2D6 and CYP2C19) has provided an explanation as to why some patients do not obtain the expected drug effects or show exaggerated drug response and serious toxicity after taking the standard and safe dose of a drug.

These polymorphisms are expressed in two phenotypes in the population, the extensive metabolizer (EM) and poor metabolizer (PM). The prevalence of PM is different among different populations. For example, the gene coding for CYP2D6 is highly polymorphic and several mutations have been identified in PM, which all lead to the absence of functional CYP2D6. Poor metabolizers of CYP2D6 and CYP2C19 quite frequently experience exaggerated drug response and side effects when they receive standard doses. If a metabolite is the active therapeutic moiety, a PM will show no therapeutic response, as demonstrated for the analgesic effect of codeine mediated by its CYP2D6-formed metabolite morphine. The other extreme are the so called ultra-rapid metabolizers who do not respond to standard doses. Recently, the molecular basis of ultra-rapid metabolism has been identified to be due to CYP2D6 gene amplification.

Thus, the level of expression of a marker of the invention in an individual can be determined to thereby select appropriate agent(s) for therapeutic or prophylactic treatment of the individual. In addition, pharmacogenetic studies can be used to apply genotyping of polymorphic alleles encoding drug-metabolizing enzymes to the identification of an individual's drug responsiveness phenotype. This knowledge, when applied to dosing or drug selection, can avoid adverse reactions or therapeutic failure and thus enhance therapeutic or prophylactic efficiency when treating a subject with a modulator of expression of a marker of the invention.

30 C. Monitoring Clinical Trials

Monitoring the influence of agents (*e.g.*, drug compounds) on the level of expression of a marker of the invention can be applied not only in basic drug screening,

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but also in clinical trials. For example, the effectiveness of an agent to affect marker expression can be monitored in clinical trials of subjects receiving treatment for ovarian cancer. In a preferred embodiment, the present invention provides a method for monitoring the effectiveness of treatment of a subject with an agent (*e.g.*, an agonist, antagonist, peptidomimetic, protein, peptide, nucleic acid, small molecule, or other drug candidate) comprising the steps of (i) obtaining a pre-administration sample from a subject prior to administration of the agent; (ii) detecting the level of expression of one or more selected markers of the invention in the pre-administration sample; (iii) obtaining one or more post-administration samples from the subject; (iv) detecting the level of expression of the marker(s) in the post-administration samples; (v) comparing the level of expression of the marker(s) in the pre-administration sample with the level of expression of the marker(s) in the post-administration sample or samples; and (vi) altering the administration of the agent to the subject accordingly. For example, increased administration of the agent can be desirable to increase expression of the marker(s) to higher levels than detected, *i.e.*, to increase the effectiveness of the agent. Alternatively, decreased administration of the agent can be desirable to decrease expression of the marker(s) to lower levels than detected, *i.e.*, to decrease the effectiveness of the agent.

20 D. Electronic Apparatus Readable Media and Arrays

Electronic apparatus readable media comprising a marker of the present invention is also provided. As used herein, "electronic apparatus readable media" refers to any suitable medium for storing, holding or containing data or information that can be read and accessed directly by an electronic apparatus. Such media can include, but are not limited to: magnetic storage media, such as floppy discs, hard disc storage medium, and magnetic tape; optical storage media such as compact disc; electronic storage media such as RAM, ROM, EPROM, EEPROM and the like; general hard disks and hybrids of these categories such as magnetic/optical storage media. The medium is adapted or configured for having recorded thereon a marker of the present invention.

30 As used herein, the term "electronic apparatus" is intended to include any suitable computing or processing apparatus or other device configured or adapted for storing data or information. Examples of electronic apparatus suitable for use with the

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present invention include stand-alone computing apparatus; networks, including a local area network (LAN), a wide area network (WAN) Internet, Intranet, and Extranet; electronic appliances such as a personal digital assistants (PDAs), cellular phone, pager and the like; and local and distributed processing systems.

5 As used herein, "recorded" refers to a process for storing or encoding information on the electronic apparatus readable medium. Those skilled in the art can readily adopt any of the presently known methods for recording information on known media to generate manufactures comprising the markers of the present invention.

10 A variety of software programs and formats can be used to store the marker information of the present invention on the electronic apparatus readable medium. For example, the nucleic acid sequence corresponding to the markers can be represented in a word processing text file, formatted in commercially-available software such as WordPerfect and MicroSoft Word, or represented in the form of an ASCII file, stored in a database application, such as DB2, Sybase, Oracle, or the like, as well as in other
15 forms. Any number of dataprocessor structuring formats (*e.g.*, text file or database) may be employed in order to obtain or create a medium having recorded thereon the the markers of the present invention.

20 By providing the markers of the invention in readable form, one can routinely access the marker sequence information for a variety of purposes. For example, one skilled in the art can use the nucleotide or amino acid sequences of the present invention in readable form to compare a target sequence or target structural motif with the sequence information stored within the data storage means. Search means are used to identify fragments or regions of the sequences of the invention which match a particular target sequence or target motif.

25 The present invention therefore provides a medium for holding instructions for performing a method for determining whether a subject has ovarian cancer or a pre-disposition to ovarian cancer, wherein the method comprises the steps of determining the presence or absence of a marker and based on the presence or absence of the marker, determining whether the subject has ovarian cancer or a pre-disposition to ovarian
30 cancer and/or recommending a particular treatment for ovarian cancer or pre-ovarian cancer condition.

The present invention further provides in an electronic system and/or in a network, a method for determining whether a subject has ovarian cancer or a pre-disposition to ovarian cancer associated with a marker wherein the method comprises the steps of determining the presence or absence of the marker, and based on the
5 presence or absence of the marker, determining whether the subject has ovarian cancer or a pre-disposition to ovarian cancer, and/or recommending a particular treatment for the ovarian cancer or pre-ovarian cancer condition. The method may further comprise the step of receiving phenotypic information associated with the subject and/or acquiring from a network phenotypic information associated with the subject.

10 The present invention also provides in a network, a method for determining whether a subject has ovarian cancer or a pre-disposition to ovarian cancer associated with a marker, said method comprising the steps of receiving information associated with the marker receiving phenotypic information associated with the subject, acquiring information from the network corresponding to the marker and/or ovarian cancer, and
15 based on one or more of the phenotypic information, the marker, and the acquired information, determining whether the subject has a ovarian cancer or a pre-disposition to ovarian cancer. The method may further comprise the step of recommending a particular treatment for the ovarian cancer or pre-ovarian cancer condition.

The present invention also provides a business method for determining whether a
20 subject has ovarian cancer or a pre-disposition to ovarian cancer, said method comprising the steps of receiving information associated with the marker, receiving phenotypic information associated with the subject, acquiring information from the network corresponding to the marker and/or ovarian cancer, and based on one or more of the phenotypic information, the marker, and the acquired information, determining
25 whether the subject has ovarian cancer or a pre-disposition to ovarian cancer. The method may further comprise the step of recommending a particular treatment for the ovarian cancer or pre-ovarian cancer condition.

The invention also includes an array comprising a marker of the present invention. The array can be used to assay expression of one or more genes in the array.
30 In one embodiment, the array can be used to assay gene expression in a tissue to ascertain tissue specificity of genes in the array. In this manner, up to about 7600 genes

can be simultaneously assayed for expression. This allows a profile to be developed showing a battery of genes specifically expressed in one or more tissues.

In addition to such qualitative determination, the invention allows the quantitation of gene expression. Thus, not only tissue specificity, but also the level of
5 expression of a battery of genes in the tissue is ascertainable. Thus, genes can be grouped on the basis of their tissue expression *per se* and level of expression in that tissue. This is useful, for example, in ascertaining the relationship of gene expression between or among tissues. Thus, one tissue can be perturbed and the effect on gene expression in a second tissue can be determined. In this context, the effect of one cell
10 type on another cell type in response to a biological stimulus can be determined. Such a determination is useful, for example, to know the effect of cell-cell interaction at the level of gene expression. If an agent is administered therapeutically to treat one cell type but has an undesirable effect on another cell type, the invention provides an assay to determine the molecular basis of the undesirable effect and thus provides the
15 opportunity to co-administer a counteracting agent or otherwise treat the undesired effect. Similarly, even within a single cell type, undesirable biological effects can be determined at the molecular level. Thus, the effects of an agent on expression of other than the target gene can be ascertained and counteracted.

In another embodiment, the array can be used to monitor the time course of,
20 expression of one or more genes in the array. This can occur in various biological contexts, as disclosed herein, for example development of ovarian cancer, progression of ovarian cancer, and processes, such a cellular transformation associated with ovarian cancer.

The array is also useful for ascertaining the effect of the expression of a gene on
25 the expression of other genes in the same cell or in different cells. This provides, for example, for a selection of alternate molecular targets for therapeutic intervention if the ultimate or downstream target cannot be regulated.

The array is also useful for ascertaining differential expression patterns of one or more genes in normal and abnormal cells. This provides a battery of genes that could
30 serve as a molecular target for diagnosis or therapeutic intervention.

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E. Surrogate Markers

The markers of the invention may serve as surrogate markers for one or more disorders or disease states or for conditions leading up to disease states, and in particular, ovarian cancer. As used herein, a "surrogate marker" is an objective biochemical marker which correlates with the absence or presence of a disease or disorder, or with the progression of a disease or disorder (*e.g.*, with the presence or absence of a tumor). The presence or quantity of such markers is independent of the disease. Therefore, these markers may serve to indicate whether a particular course of treatment is effective in lessening a disease state or disorder. Surrogate markers are of particular use when the presence or extent of a disease state or disorder is difficult to assess through standard methodologies (*e.g.*, early stage tumors), or when an assessment of disease progression is desired before a potentially dangerous clinical endpoint is reached (*e.g.*, an assessment of cardiovascular disease may be made using cholesterol levels as a surrogate marker, and an analysis of HIV infection may be made using HIV RNA levels as a surrogate marker, well in advance of the undesirable clinical outcomes of myocardial infarction or fully-developed AIDS). Examples of the use of surrogate markers in the art include: Koomen *et al.* (2000) *J. Mass. Spectrom.* 35: 258-264; and James (1994) *AIDS Treatment News Archive* 209.

The markers of the invention are also useful as pharmacodynamic markers. As used herein, a "pharmacodynamic marker" is an objective biochemical marker which correlates specifically with drug effects. The presence or quantity of a pharmacodynamic marker is not related to the disease state or disorder for which the drug is being administered; therefore, the presence or quantity of the marker is indicative of the presence or activity of the drug in a subject. For example, a pharmacodynamic marker may be indicative of the concentration of the drug in a biological tissue, in that the marker is either expressed or transcribed or not expressed or transcribed in that tissue in relationship to the level of the drug. In this fashion, the distribution or uptake of the drug may be monitored by the pharmacodynamic marker. Similarly, the presence or quantity of the pharmacodynamic marker may be related to the presence or quantity of the metabolic product of a drug, such that the presence or quantity of the marker is indicative of the relative breakdown rate of the drug *in vivo*. Pharmacodynamic markers are of particular use in increasing the sensitivity of detection

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of drug effects, particularly when the drug is administered in low doses. Since even a small amount of a drug may be sufficient to activate multiple rounds of marker transcription or expression, the amplified marker may be in a quantity which is more readily detectable than the drug itself. Also, the marker may be more easily detected

5 due to the nature of the marker itself; for example, using the methods described herein, antibodies may be employed in an immune-based detection system for a protein marker, or marker-specific radiolabeled probes may be used to detect a mRNA marker. Furthermore, the use of a pharmacodynamic marker may offer mechanism-based prediction of risk due to drug treatment beyond the range of possible direct

10 observations. Examples of the use of pharmacodynamic markers in the art include: Matsuda *et al.* US 6,033,862; Hattis *et al.* (1991) *Env. Health Perspect.* 90: 229-238; Schentag (1999) *Am. J. Health-Syst. Pharm.* 56 Suppl. 3: S21-S24; and Nicolau (1999) *Am. J. Health-Syst. Pharm.* 56 Suppl. 3: S16-S20.

The markers of the invention are also useful as pharmacogenomic markers. As

15 used herein, a "pharmacogenomic marker" is an objective biochemical marker which correlates with a specific clinical drug response or susceptibility in a subject (see, e.g., McLeod *et al.* (1999) *Eur. J. Cancer* 35(12): 1650-1652). The presence or quantity of the pharmacogenomic marker is related to the predicted response of the subject to a specific drug or class of drugs prior to administration of the drug. By assessing the

20 presence or quantity of one or more pharmacogenomic markers in a subject, a drug therapy which is most appropriate for the subject, or which is predicted to have a greater degree of success, may be selected. For example, based on the presence or quantity of RNA or protein for specific tumor markers in a subject, a drug or course of treatment may be selected that is optimized for the treatment of the specific tumor likely to be

25 present in the subject. Similarly, the presence or absence of a specific sequence mutation in marker DNA may correlate with drug response. The use of pharmacogenomic markers therefore permits the application of the most appropriate treatment for each subject without having to administer the therapy.

VI. Experimental Protocol

A. Subtracted Libraries

Subtracted libraries are generated using a PCR based method that allows the isolation of clones expressed at higher levels in one population of mRNA (tester) compared to another population (driver). Both tester and driver mRNA populations are converted into cDNA by reverse transcription, and then PCR amplified using the SMART PCR kit from Clontech. Tester and driver cDNAs are then hybridized using the PCR-Select cDNA subtraction kit from Clontech. This technique results in both subtraction and normalization, which is an equalization of copy number of low-abundance and high-abundance sequences. After generation of the subtractive libraries, a group of 96 or more clones from each library is tested to confirm differential expression by reverse Southern hybridization.

To create the subtracted libraries, a first group of regular cDNA libraries was constructed. Library johOa was constructed from a pool of 5 normal ovarian epithelial cell cultures. Library johOb was constructed from a pool of 5 ascites short cultured samples from ovarian cancer patients. Library johOc was constructed from a pool of 6 serous late stage (III/IV) tumor samples. Three subtracted libraries were generated from tumor samples. Library johOd was a subtracted ascites library, where the tester was johOb, and the driver was johOa. The johOe and the johOf library were both subtracted stage III/IV serous tumor libraries. The tester for both of these libraries was johOc, and the driver was a pooled RNA from normal tissues. The tissues used for this driver pool were: kidney, small intestine, prostate, lung, heart, muscle, spleen, pancreas, liver, and lymphocyte. Library cMhOg was the same as the johOc and johOf libraries, with the exception that normal ovary was added to the driver. cMhOh, i, j, and k are all stage I/II subtracted libraries made from pooled tumor RNAs of different histological types (h=serous, I=endometrioid, j=clear cell, k=mucinous). The driver was the same for these 4 libraries. It consisted of normal ovarian epithelial RNA and PBML RNA. Of the markers listed in Table 1, SEQ ID NOS: 1-129, 916-1029, 1566-1571 and 1607-1865 were identified in library johOa. Markers identified in johOb include SEQ ID NOS: 130-177, 1030-1081, 1572-1574, and 1866-1974. Markers identified in johOc include SEQ ID NOS: 178-269, 1082-1120, 1575-1577, and 1975-2060. Markers identified in johOd include SEQ ID NOS: 270-370, 1121-1304, 1578-1592, and 2061-2244. Markers

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identified in johOe include SEQ ID NOS: 371-611, 1305-1416, 1593-1596 and 2245-2487. Markers identified in johOf include SEQ ID NOS: 612-915, 1417-1565, 1597-1606, and 2488-2871. Of the markers listed in Table 1A, SEQ ID NOS: 2872-2976, 3817-3898, 4438-4443 and 4474-4675 were identified in library cMhOg. Markers
5 identified in cMhOh include SEQ ID NOS: 2977-3376, 3899-4072, 4444-4455, and 4676-5303. Markers identified in cMhOi include SEQ ID NOS: 3377-3495, 4073-4158, 4456-4460, and 5304-5637. Markers identified in cMhOj include SEQ ID NOS: 3496-3742, 4195-4390, 4461-4468, and 5638-6197. Markers identified in cMhOk include SEQ ID NOS: 3743-3816, 4391-4437, 4469-4473 and 6198-6398.

10

VII. Summary Of The Data Provided In The Tables

Tables 1, 1A, 2 and 3 are being filed concurrently herewith on a compact disc in lieu of paper copies. The compact disc submitted is formatted from an IBM-PC and is compatible with MS-Windows. The disc contains the following four (4) files:

15 Table1.text, containing 1,223kb, Table1A.text, containing 1,582kb, Table2.text, containing 10,600kb, and Table3.text, containing 568kb. The material on the compact disc, namely Tables 1, 1A, 2 and 3, is expressly incorporated by reference.

Tables 1 and 1A show 6398 novel nucleotide sequences. These 6398 novel sequences were determined to be novel through various BLAST searches of available
20 databases. Of these novel markers, SEQ ID NOS: 1566 – 1606 and 4438-4473 are preferred, SEQ ID NOS: 916-1565 and 3817-4437 are more preferred, and SEQ ID NOS: 1 – 915 and 2872-3816 are most preferred.

The sequences of Tables 1 and 1A were re-interpreted and vector sequences removed and those sequences are set forth in Table 2.

25 Table 3 correlates the SEQ ID NOS. from Tables 1 and 1A with those of Table 2.

The contents of all references, patents, published patent applications, and databases cited throughout this application are hereby incorporated by reference.

30 Other Embodiments

Those skilled in the art will recognize, or be able to ascertain using no more than routine experimentation, many equivalents to the specific embodiments of the invention

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described herein. Such equivalents are intended to be encompassed by the following claims.

What is claimed is:

5

Claims

1. An isolated nucleic acid molecule comprising a nucleotide sequence of Tables 1-2, or a complement thereof.
- 5 2. A vector which contains the nucleic acid molecule of claim 1.
3. A host cell which contains the nucleic acid molecule of claim 1.
- 10 4. An isolated polypeptide which is encoded by a nucleic acid molecule comprising a nucleotide sequence of Tables 1-2.
5. An antibody which selectively binds to a polypeptide of claim 4.
- 15 6. A method for producing a polypeptide comprising culturing the host cell of claim 3 under conditions in which the nucleic acid molecule is expressed.
7. A method for detecting the presence of a polypeptide of claim 4 in a sample comprising:
 - 20 a) contacting the sample with a compound which selectively binds to the polypeptide; and
 - b) determining whether the compound binds to the polypeptide in the sample to thereby detect the presence of a polypeptide of claim 4 in the sample.
- 25 8. A kit comprising a compound which selectively binds to the polypeptide of claim 4.

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9. A method for detecting the presence of a nucleic acid molecule of claim 1 in a sample comprising:

- a) contacting the sample with a nucleic acid probe or primer which selectively hybridizes to the nucleic acid molecule; and
- 5 b) determining whether the nucleic acid probe or primer binds to a nucleic acid molecule in the sample to thereby detect the presence of a nucleic acid molecule of claim 1 in the sample.

10. The method of claim 9, wherein the sample comprises mRNA molecules and is contacted with a nucleic acid probe.

11. The method of claim 9, wherein the sample is isolated from ovarian tissue.

12. The method of claim 9, wherein the sample is a tumor sample.

13. A kit comprising a compound which selectively hybridizes to a nucleic acid molecule of claim 1.

14. A method of assessing whether a patient is afflicted with ovarian cancer, the method comprising comparing:

- a) the level of expression of a marker in a patient sample, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2, and
 - 25 b) the normal level of expression of the marker in a control non-ovarian cancer sample,
- wherein a significant difference between the level of expression of the marker in the patient sample and the normal level is an indication that the patient is afflicted with ovarian cancer.

30

15. The method of claim 14, wherein the marker corresponds to a secreted protein.

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16. The method of claim 14, wherein the marker corresponds to a transcribed polynucleotide or portion thereof, wherein the polynucleotide comprises the marker.

17. The method of claim 14, wherein the sample comprises cells obtained
5 from the patient.

18. The method of claim 17, wherein the sample is an ovarian tissue sample.

19. The method of claim 14, wherein the sample is an ovary-associated body
10 fluid.

20. The method of claim 14, wherein the level of expression of the marker in the sample is assessed by detecting the presence in the sample of a protein or protein fragment corresponding to the marker.

15

21. The method of claim 20, wherein the presence of the protein or protein fragment is detected using a reagent which specifically binds with the protein or protein fragment.

20 22. The method of claim 21, wherein the reagent is selected from the group consisting of an antibody, an antibody derivative, and an antibody fragment.

23. The method of claim 14, wherein the level of expression of the marker in the sample is assessed by detecting the presence in the sample of a transcribed
25 polynucleotide or portion thereof, wherein the transcribed polynucleotide comprises the marker.

24. The method of claim 23, wherein the transcribed polynucleotide is an mRNA.

30

25. The method of claim 23, wherein the transcribed polynucleotide is a cDNA.

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26. The method of claim 23, wherein the step of detecting further comprises amplifying the transcribed polynucleotide.

27. The method of claim 14, wherein the level of expression of the marker in the sample is assessed by detecting the presence in the sample of a transcribed polynucleotide which anneals with the marker or anneals with a portion of a polynucleotide wherein the polynucleotide comprises the marker, under stringent hybridization conditions.

28. The method of claim 14, wherein the level of expression of the marker in the sample differs from the normal level of expression of the marker in a patient not afflicted with ovarian cancer by a factor of at least about 2.

29. The method of claim 14, wherein the level of expression of the marker in the sample differs from the normal level of expression of the marker in a patient not afflicted with ovarian cancer by a factor of at least about 5.

30. The method of claim 14, comprising comparing:
a) the level of expression in the sample of each of a plurality of markers independently selected from the markers listed in Tables 1-2, and
b) the normal level of expression of each of the plurality of markers in samples of the same type obtained from control humans not afflicted with ovarian cancer,
wherein the level of expression of more than one of the markers is significantly altered, relative to the corresponding normal levels of expression of the markers, is an indication that the patient is afflicted with ovarian cancer.

31. The method of claim 30, wherein the level of expression of each of the markers is significantly altered, relative to the corresponding normal levels of expression of the markers, is an indication that the patient is afflicted with ovarian cancer.

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32. The method of claim 30, wherein the plurality comprises at least three of the markers.

33. The method of claim 30, wherein the plurality comprises at least five of the markers.

34. A method for monitoring the progression of ovarian cancer in a patient, the method comprising:

- 10 a) detecting in a patient sample at a first point in time, the expression of a marker, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2;
- b) repeating step a) at a subsequent point in time; and
- c) comparing the level of expression detected in steps a) and b), and therefrom monitoring the progression of ovarian cancer.

15

35. The method of claim 34, wherein the marker corresponds to a secreted protein.

36. The method of claim 34, wherein the marker corresponds to a transcribed polynucleotide or portion thereof, wherein the polynucleotide comprises the marker.

20

37. The method of claim 34, wherein the sample comprises cells obtained from the patient.

25

38. The method of claim 37, wherein the patient sample is an ovarian tissue sample.

39. The method of claim 34, wherein between the first point in time and the subsequent point in time, the patient has undergone surgery to remove ovarian tissue.

30

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40. A method of assessing the efficacy of a test compound for inhibiting ovarian cancer in a patient, the method comprising comparing:

- 5 a) expression of a marker in a first sample obtained from the patient and exposed to the test compound, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2, and
- b) expression of the marker in a second sample obtained from the patient, wherein the sample is not exposed to the test compound, wherein a significantly lower level of expression of the marker in the first sample, relative to the second sample, is an indication that the test compound is
- 10 efficacious for inhibiting ovarian cancer in the patient.

41. The method of claim 40, wherein the first and second samples are portions of a single sample obtained from the patient.

- 15 42. The method of claim 40, wherein the first and second samples are portions of pooled samples obtained from the patient.

43. A method of assessing the efficacy of a therapy for inhibiting ovarian cancer in a patient, the method comprising comparing:

- 20 a) expression of a marker in the first sample obtained from the patient prior to providing at least a portion of the therapy to the patient, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2, and
- b) expression of the marker in a second sample obtained from the
- 25 patient following provision of the portion of the therapy, wherein a significantly lower level of expression of the marker in the second sample, relative to the first sample, is an indication that the therapy is efficacious for inhibiting ovarian cancer in the patient.

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44. A method of selecting a composition for inhibiting ovarian cancer in a patient, the method comprising:

- a) obtaining a sample comprising cancer cells from the patient;
- b) separately exposing aliquots of the sample in the presence of a plurality of test compositions;
- c) comparing expression of a marker in each of the aliquots, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2; and
- d) selecting one of the test compositions which alters the level of expression of the marker in the aliquot containing that test composition, relative to other test compositions.

45. A method of inhibiting ovarian cancer in a patient, the method comprising:

- a) obtaining a sample comprising cancer cells from the patient;
- b) separately maintaining aliquots of the sample in the presence of a plurality of test compositions;
- c) comparing expression of a marker in each of the aliquots, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2; and
- d) administering to the patient at least one of the test compositions which alters the level of expression of the marker in the aliquot containing that test composition, relative to other test compositions.

46. A kit for assessing whether a patient is afflicted with ovarian cancer, the kit comprising reagents for assessing expression of a marker selected from the group consisting of the markers listed in Tables 1-2.

47. A kit for assessing the presence of ovarian cancer cells, the kit comprising a nucleic acid probe wherein the probe specifically binds with a transcribed polynucleotide corresponding to a marker selected from the group consisting of the markers listed in Tables 1-2.

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48. A kit for assessing the suitability of each of a plurality of compounds for inhibiting ovarian cancer in a patient, the kit comprising:

- a) the plurality of compounds; and
- b) a reagent for assessing expression of a marker selected from the group consisting of the markers listed in Tables 1-2.

49. A method of making an isolated hybridoma which produces an antibody useful for assessing whether a patient is afflicted with ovarian cancer, the method comprising:

isolating a protein or protein fragment corresponding to a marker selected from the group consisting of the markers listed in Tables 1-2;

immunizing a mammal using the isolated protein or protein fragment;

isolating splenocytes from the immunized mammal;

fusing the isolated splenocytes with an immortalized cell line to form hybridomas; and

screening individual hybridomas for production of an antibody which specifically binds with the protein or protein fragment to isolate the hybridoma.

50. An antibody produced by a hybridoma made by the method of claim 42.

51. A kit for assessing the presence of human ovarian cancer cells, the kit comprising an antibody, wherein the antibody specifically binds with a protein or protein fragment corresponding to a marker selected from the group consisting of the markers listed in Tables 1-2.

52. A method of assessing the ovarian cell carcinogenic potential of a test compound, the method comprising:

- a) maintaining separate aliquots of ovarian cells in the presence and absence of the test compound; and
- b) comparing expression of a marker in each of the aliquots, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2,

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wherein a significantly altered level of expression of the marker in the aliquot maintained in the presence of the test compound, relative to the aliquot maintained in the absence of the test compound, is an indication that the test compound possesses human ovarian cell carcinogenic potential.

5

53. A kit for assessing the ovarian cell carcinogenic potential of a test compound, the kit comprising ovarian cells and a reagent for assessing expression of a marker, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2.

10

54. A method of inhibiting ovarian cancer in a patient at risk for developing ovarian cancer, the method comprising inhibiting expression of a gene corresponding to a marker selected from the markers listed in Tables 1-2.

15

55. A method of treating a patient afflicted with ovarian cancer, the method comprising providing to cells of the patient an antisense oligonucleotide complementary to a polynucleotide corresponding to a marker selected from the markers listed in Tables 1-2.

20

56. A method of inhibiting ovarian cancer in a patient at risk for developing ovarian cancer, the method comprising decreasing expression of a gene corresponding to a marker selected from the markers listed in Tables 1-2.

25

57. A method for determining whether ovarian cancer has metastasized in a patient, the method comprising comparing:

a) the level of expression of a marker in a patient sample, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2, and

b) the normal level or non-metastatic level of expression of the marker in a control sample

30

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wherein a significant difference between the level of expression in the patient sample and the normal level or non-metastatic level is an indication that the ovarian cancer has metastasized.

5 58. The method of claim 57, wherein the marker corresponds to a secreted protein.

 59. The method of claim 57, wherein the marker corresponds to a transcribed polynucleotide or portion thereof, wherein the polynucleotide comprises the marker.
10

 60. The method of claim 57, wherein the sample comprises cells obtained from the patient.

 61. The method of claim 60, wherein the patient sample is an ovarian tissue
15 sample.

 62. A method for assessing the aggressiveness or indolence of ovarian cancer comprising comparing:

- a) the level of expression of a marker in a sample, wherein at least
20 one marker is selected from the markers of Tables 1-2, and
- b) the normal level of expression of the marker in a control sample,
 wherein a significant difference between the level of expression in the sample
 and the normal level is an indication that the cancer is aggressive or indolent.

25 63. The method of claim 62, wherein the marker corresponds to a secreted protein.

 64. The method of claim 62, wherein marker corresponds to a transcribed polynucleotide or portion thereof, wherein the polynucleotide comprises the marker.
30

 65. The method of claim 62, wherein the sample comprises cells obtained from the patient.

66. The method of claim 65, wherein the patient sample is an ovarian tissue sample.

TABLE 1
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Sequence 1

ACGCGTCCGGGAGACACAAAGCAGGAAGCCTCCGGGAGACCAGAGCTGGGTGCAGACATA
CACACACACATACACACAGACACACAGAGTCACACACACTCACACACACTCTCTCTCTCT
CTCCCTCTGTCTTTCTCTCTCTCTCTCTCTCTGTCTTTCTCCTGGACAGATCCACA
GTTATACACAGAAACAAACACACACGCACGTAGAGAAGTGATTCACAAACACTTAAAGAC
ATAAATCACAGGTGCAAAGCCATACCTGGGCTCAAAAACCTCCAAGAGAACGCAGCCTCA
GACCCACCCAGGGGCCAGGGGCCAGGCTGTTTGCGAGACCAGCCCAGGCGGGACCCAGGC
TTGCACGGGCAGGTACACGACATTCTTTGGGCATACGCAGCCCGCCTGGCCGGAGCTGTGG
GAGTCCTCAGCCCCAAGACCCAGCAGGCGTCTGAGGCCTGCCCACTAAGGAGGAGGAGTC
ATTGCTGCCATCATTTATCATNCCCTCCCCAGCCACAGTCTGAGGAGCCCNCTGTNACCC
TTCCCA

Sequence 2

CGTCCGGAAGCTGGTGGGAATGCTAAGTTCGAGAGTTCCTGGAGTCTCAGGAGGATTA
CGATCCTTGCTGGTCTTG CAGGAGAAGTACAACAGCAGAGCCGCGGCCCTCTTTAGGGA
TAAGGTGGTCGCTCTGGCCGAAGGCAGAGAGTGGTCTTTGGAGTCATCACCTGCCAGAA
CTGGACCCTACCTNAGCCCANGACGCTGCCGTCCATGGTGCACCGAGTCTCTGGCCAGCC
GCAGAGTGTGACCGCCTCCTNGGACAAGGCTTTTGAAGACTGGCTGAATGATGACCTCGG
CTCCTATCAAGGGGGCCAGGGGAATCGCTACGTGGGGTTTGGGAACACGCCACCGCCTCA
NAAGAAAGAAGATGACTTTCTCAACAACGCCATGTCCTCCCTGTACTCGGGCTGGA

Sequence 3

NCCACGCGTCCGGGACGCGGGCGCCAGGTGCACAGCCCCAGTCCGCTGCGGGCGGGCGT
GACATCTGCCGCGTGAGCGCGAGCTGGAGCTACACCGCTTTCGTGACCCGTGGAGGCCGC
TTGGAGCTGTCGGGCTCAGCCAGCGGCGCGGCGGGCCGCTGCAAGGACGCGTGGGCCTCG
GAGGGGCTCCTCGCGGTGCTGCGCGCCGGGCCGGGGCCGAGGCGTTACTGCAGGTCTGG
GCGGCCGAATCGGCGCTGCGTGGGGAGCCATTGTGGGCCCAAGTGGTGGTGCCCGAGGC
CGAAGGGGGAAGGACGATCCGGCCGGGTGAAGGCCCAAGCTTGGGGAGGCTACCCCTTGC
TTGCCCTGCGGCCCGCTGCCCTACGTGAGCCCCGCGGGCCGCCCTTCTACCGGCCTTT
TGGCTTCCGGGAGCTTGCGGGGCAACGCCAACTTGGGAGCTGGGGCCGCCAGCAACCCCG
TTGCTTGTTGGACGCTGTGCCCAAAGGTGGTTTCTGGGGGGCGGGG

Sequence 4

AGTCNCCACGCGTCCGGAATTGANGCCGCGGGGCGGGCGGGCGGGCGGGCTGGGCGGGC
GCCGGGACCCAGCGGGCCAGGTGGGGACGGCGCGGAGCGGGTGC GGAGATGCCGTGCGG
GACTGGGGCCACCTGAGCCGCCCGCCTCGTCCCCGCCTTCTGTGGGAAGGATGTGCGCGC
GGATGGCCGGTTCGACAACAGCGGCCCCCTCGGGGGCCCTACGGCCCTGGCTCTGCCTCC
TGGTGGCCCTCGCCCTGGGACCGTCTGAGAGTGGACTGTGGCCAGGCTCCCTGGACCC
TGCTACCTGCCGGCAGCCCTGGAGCTCTAGACGCCCTGAACACT

Sequence 5

TCNCCACGCGTCCGACTGTATGTATTCTGGATACAGGGGATACTGGGCTCGCTATGTGTG
TGGAGCCATCCCTTCCCTGCCCCAGCCCCACCTCCCTCTCAAACCTCTCTGGCTCTTTC
TGAGCTTCCCTTCCCTGCTCCCCAGCTTGCCCAAGTCTCAGTGCCCCACTTGGCTCTTTTG
CTACTTCGGGTGAGGTGGAGCCTCTTGGGAATGTGAAGTGCCTTACAGAAAGATTGCACT
TCAAGAGGAGAGGCTGCAGGGAGCCATCCTAAACCCAGAGGCCTGGAGCTTACCCGTGTC
ACTTTACTTTGTACACAAGGGGGTCTCCTTAGTGCCCTCGAGAAGGGATTCTTGGGCC
TGAGCTTCTACTCCTGAGGCCACCTTCTGTGCAAGCCCCAAGCTCCTCAACTCTAGGCT
TGGAGTCTCAGTGGGGAAAAGCCCTGNTTTGGGG

Sequence 6

CGTCCGCGTCTCTCGCTGCGGAAAGTTGGGGCAACCTGTTGCTAGTCTGGTCTGTTGGTGAC
AGCGAGGCTTCCGCGCTCGCTGCTGGTGAGCAGCCCGGCGTGCCCCGCGGGCTGGAAGA
GGCGGCGGCGTGATGCGGCCCGTGGACGCGCCCGCGCCGGCCCGCGAGAACCTGGCCCTC
CCTGGAGCGCGAGCGCGCCCGGGCGCACTGGCGGGCCCGCAGGAAGCTGCTGGAGATCCA

TABLE 1
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GAGCCTGCTCGACGCCATCAAGAGTGAGGTGGAGGCAGAGGAGCGGGGCGCCCGGGCCCC
AGCACCCCGCCCCGCGTGCGGAGGCTGAGGAGNCGGGTGGCTCGGCTGTGCGCCCGAAGC
AGAGAGGAAGGCTGCGGAAGCGGCGCGGATGGGGCAGGCGGGATCGTGGGAGCTGCACNN
ACCGGATCGCCGGCTTGCGAGTGCTGCTGAGCCGGCGAGGCCNCGGGTCTGGAAGCGGA
ANCGCGCGGG

Sequence 7

NTTCGGGAGTGCACCACGCTCCGCGCGCTGGAGGAGTGGAGCAAGCACCCGGCCCGGCC
CTGGGGGCTGACAGTCGGCAAAGTTTGGCCGAAGAGGAAGTGGTCTCAAACCCGCGCAG
GTGGCGACCAGGCCAGACCAGGGGCGCTCGCTGCTGCGGGCGGGCTGTAGGCGAGGGCG
CGCCCCAGTGCCGAGACCCGGGGCTTCAGGAGCCGGCCCCCGGAGAGAAGAGTGCGGCGG
CGGACGGAGAAAACAACCTCAAAGTTGGCGAAAGGCACCGCCCCCTACTCCCGGGCTTGCC
GCCGCTCCCCGCCCCAGCCCTGGCATCCAGAGTACGGGTCGAGCCCGGGCCATGGAGC
CCCCCTGGGGAAGGCGGCACCAGGGGAGCCTTGGGCGCCCGGGCTTCGGCCGCGACCCC
ATTTGGGGTAGACCACAAGAAAGCTTCGGGACCCTTTCGGCACCTTGGACAGCCAAGAA
TGGCTGNTGGGCACCCTTCTTCT

Sequence 8

CCCCGCGTCCGGAGCACGCAAAGGGAATAAATTGTAATTAGGTGGTGGGTGGCTAAAAAT
GACAATGCAAAGGTGTTGGATTAAAAAAAATCTGGTAGTAGAGGGAAATTATGGAGGA
TTTTTAAAAAGGTTAATGATAATATCCATCTACTTATGTAACTTTTTTGGAGATACCTG
ATAATAGTGTAGAGTGCATTGGAGAGGAAAAAGTAGGAGTTGTAAAGACCATTTTGGATAA
ACTTTGAAGCAAGGGATAATGGCCTCAACCAAGGTAGTGGTGTGAAGATTGTTTACATA
AATAAGCAGATACAAATAGAAGGGATTTTTCAAGTGGCATTGTAACCTGCACTTTTCAAAG
GTTATTTGCCAAAAATCAAATTAACGGTATCTTCAAAAATCATGTTTGATGGATGTATCA
TCAAGGGCTTTCTTAAATTTTGTGAAAGCCAAGGAA

Sequence 9

CGCCTTCCCGGAAGTTTGGAGGGCCCCGNAGGGGAAGCCCCCGCGNCTTCNGGGGGCCN
GNCGGGCTTGAAGGCAANCCCCACCCCAAGTTTCCCCGCCNANGGANTNCAATGAANCT
TGACCGGGGCCCCCGGAACCCNCGCTNGNCTTNTTNGGGGGTGGTTCCTTGGGTCCG
GTGGGGGGGAACCCCAAGTGCTTTTCAAGGCCCGGCCGGGCCCGGGGCCCGGAAAGG
GCCTTTCAAGTTCCTTNCCTTTCCCCGNTTGAAGAAGGNAAAAGGCCGGGAANGGAAAC
CNGGGNAAAACCCGCGNGGNNGGGCGGCCTTCNNCCGCCNNGGCGCCCTTGCCNNGGG
GGGGNAAAGGGNCAAGTTTTCCCGNNGGGCCCCCGGGGCCCGCGCNGNCCCTTTNAAN
TCAAGGGGGCGCGGNNCGNCTTTCCCAANNCGGCCAAGTTCCTTCAAAGGGGCCCCC
CGGGNTTTGGGCCCGNCCGGNCGNCAACCTTGGGGAAGGAAAAAATTCAAAAAGTTT
GTTGGCCCGGTTTCCGGGTNGGAATTGCCCCCNAAAATTTGNAAGCCGGGGGGGGNN
NCCTTGGGGGCCCTTCTTTGCCCCNTTTAAAGGGAANGGGCNAAAACCTTTNCCCAAC
CGNCCAANNGCCCCCGTNAAAAAANGGGCGGCCTTNNTTTTGNCCGGGGCCCCNAANAA
GGGCCTTTTCGNTTTTTTCGGGTTTTTCCCCCGGGCGGGCGGGCGGNNCNTTTTTT
TTTTTGGCTTTTAAAGGGGG

Sequence 10

NCGCGTCCGCGCATTGTGGCCAAGTGCCATGAGGAGCAGCTGGATCATTCTGTCCAGTC
ATATATTAAGTTCGTGTTCAAGACCAGGGCATGCAAGGAGAGGACTGTACATGAGGAAC
GNCTAAAAATGTGACTGGTCTTTTGAATCAAATGACTCAACAACAGTAAAGCATGTCT
AAAGCATTCTGGTTCTTCTTTGCAATTATCCTAAAAATCGATGGCACAGCACTTGATTGA
CACAAATAAAATCCAGCTTCCCCGGCCTCAGAGATTTCTGAATCTTACCAAATGAATT
GGACAATCTTGNCATGGTCCTATCCGACCATGTGATTTGGGAAATACAAGGATGCACTTG
AAGAAACANGAAGGGCAAACCACAGCGTTGCCAGATTTCTCAAGCGCTGCTTTAC

Sequence 11

CGCCNCGCGTCCGGCTTCTAGAAAGAGCACAGTCCCTTAAAGCACCTCTATTGCTACAA
TTAAAAGTCTAGCAGATTGTAACCTTGTAGTTACACAAGTTCTAGAGATGCTTTTGGCTATG
CTACACTGAAAAGACTACAGCAACAAAGAATGCATCCATCCTTATCTCACTCTGAAGCTT

TABLE 1

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TGGCATCTCCAGCAAAAGATGTGCTATTTACTGATACCATCACCATGAAGGCCAACAGTT
TTGAGTCCAGATTAACACCAAGCAGGTTTCATGAAAGCCTTAAGTTATGCATCATTAGATA
AAGAAGATTTATTGAGTCCTATTAATCAAAATACCCTGCAACCGATCTTCCTCAGTGCGG
GCCATGGNGTCCAGTGCCACATNNGGGGGGTCAGAATGATTACATTGGGCTTGCTCTCCC
GGNGGATATAAATGATATATTTTCANGGTAAGGGTATTTCTTATTTTATAGACAAAAACAT
CCCNCAATGATGATCCAGNGCCAGAGCATTTGCCCTGAATGCAGGAGGGCTTTCATNTG
GNACTGGNGGGCTTTGNAAAAAATTTTT

Sequence 12

TTGCGGAGTCGACCACGCGTCCGCCAAGTCCTGCGATGATGGACTCAACACCTTCGCGGA
CGAGGGCCGGGTTCTGCGGCGCCTGCCAAACCGCATACCCAGCCTGCGGATGCTCCGGAG
CTTCTTCACCGACGGGTCTTGATAGCTGGGGCACCTCTGAAGATGCTGACGCTCCTTC
TAAGCGACACTCAACCTCTGACCTCTCAGATGCGACCTTCAGCGATATCAGGAGAGAAGG
CTGGTTGTATTATAAGCAGATTCTACCAAGAAGGGGAAGGCTGAGGACCGGGATGACAT
GCTGGGCTGGATCAGAGCGATCCGGGAGAACAGCAGGGCCGAGGGCGAGGACCCCCGGCT
GTGCCAACCAAGCTCTTGATCAGCAAGAAGCTTAATGATTATCGCAAAGTGAGCCATAGC
TCTGGGCCCAAAGCTTGATTTCTTCCC

Sequence 13

GTATTAATGTTCTCAGGCATGAAGCAGAATTTTACGGGATCACTCCATTAGTAAGAAGGC
TTCTCTTATGTGAAGAATTGGAGCGTTCCTCTTGTTGGCAGTGTCTTTTTTCATGGTTACT
TGCCCCCACCAGGTATTCCTAGTNCGTAAAATAAACACACAGTCAGATCTGCTGATTCT
AGGAATGGTCTAAATTTCTACAGAAGGTGAAGCCCGGGGAAATGGTACACAGCCTGTTCTC
TCTGGAACGGGAGAAGAACTGTTAGGCTAGGATTTCTGTGGATCCACNAAAGGTGCTA
ATAGTAGCTGGCCATCACAACCTGGATTGTAGCTGCATATGCCCATTTTGCTGTGTGTTAC
AGAATCAAAGAATNTTNANGATGGCAGCAAGTGNTTACGAGCCCATATTTGGATTGGACT
ATCGAACGAGTAGNTTTAAATGCAAAGGTGGATGGAGGGCCACATGGAGACAAAAGACAA
AATG

Sequence 14

GCCNCGCGTCCGAAAAAATTAAGAGAAGGCCTGGCGGCCGGTCTGAAGTCATCTATAATT
ATGTACAACGCCCTTCATCCAGATGTCATGGGAAAAGGAAGAAGGGAAGAGTCGCCATG
TGGATTTCTAGTGTGTTGGAAGCAAATCCCTCACGAATCTGGTAGCTGCTGGAGATGATG
TCTTGGAGGACCAGGAGATTAATGCATCACCCACCCCAAGTGGATGAACCTTGACCGGC
TAAATGCCCACTTTCTCAGATGGCTTCTAACGACTTTCAGGATTAGGGCCAGCTGTGGG
TCTACTCCTTGTTGGAGCCCATCTCACCTGGGATGCCTGCAGCCAGCCCTCCCTCGTGAT
TTGTCTCACCTTGAGTAGGAGACATGCTTCTCCCTAACCTTTTCTTTCTGCCATAATT
AACATATGTCCTTTTTCAGTAAGTCCATGCCTCTGGCAGGGGATGAAAGAAGTACTCACTG
GGTAATTAGCTACCATCTTTGCAGCACCCCTGGTAACCTTGAAAAATTT

Sequence 15

TCGGGAGTCGACCCCGCGTCCGCCGAGCGGGGCGGCGCGGCTGGCGGGGCGGCGGCCGG
CTGAAGCGAGAGCGCGACGCGACGCGACCGCGGCTTCCCGAGCTGCGCCTGGCCGNCCAG
CGCCGCGGNCCGCCCAGGCCTGGAGGGGTCCGGGCGCGCGTCCATGGTCGCGGCGTCCT
GAGGCGGGGGACGCGCCCGGCGCCCCCGGCCCTCCTNCGCCTCCTCCCGCGGGGCGGGCG
GCCTCCTCCGCGCCTNCCCGCGCCCGCCCGCGGNTCGCCGCGCCTCCCTCCCTCCTTC
CCTGCGGCTCCCCCGGCTTTCGGAGCCCGGGGGCGGCCTGTGGCGCGCGGAGCCCGCGCC
GGACTGCGCCTNTTGGACCTTGAGGGGAAACATGCGTTTGCNTGGATCGTTTGAAATT
CTGAGTTTGGGATCCCCGNCCGCGCCGCTGGCTTTTTCGCCGCGGGTTTTTCTTTTT
TCCTTTTGCTTTTTTTCTTCTT

Sequence 16

NGCCCCGCGTCCGTTTTAATTATTTGTTNGAGCCTGCANAGTAANGTTNTTAAAAATA
TAACGTTTCATACGCATTTTAATTAACCTTTGAAAGTTCATATGCATCAGAAAAATTTATGAA
AATTTGAATGAAAAAATTTTCATCTATTTATTTTCTAATTTTAAATGGCAAATTTACACT
ATTATGGCTGATAATTCTGTGAACCTACCTTCTTGTTGACTGATTCTTTTTCCCTTAATC

TABLE 1

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CCAGCTTTAAGGAGATAGGTGAAGTTATTGTACAAAGTTAAGTGATACCATAAAGTATAT
ATTATAAAGTCATACATGGCTTTTGGACAGTNTTATATTTTCAGTTGCAGTGCTGCATTCC
ATTAAATTTTCATAAAATGCTAGGGAAAATGTGTTTGATAAAATTTTNTGCAGTGAGAAAT
GACAGACTGAGTGCCTGACAATTTAAGCCACATATGAAAGTATGCAAGTAAAGANTTCAG
GTCCTTAATGTCATCTATATCATGGTATAAAAG

Sequence 17

CCACGCGTCCGGACGAGACGAGCCCACTAGTGTCCCCGAGCGGGCCCAACCCCGGACT
ACACCTTCCCGTCGGGCTCGGGCGCTCACTTTCCGCAGGTGCCCGGGGGCGCGGTCCGAG
TGGCTGGCGGCGGGCCGGCTCGGGCCCCNTCCGCCGGGCTCGCCGGGCCACGACCGCTGA
GCGGCAGCCACTGTTGGATCGGGCCCCGGGGCGCGGNGGCCAGGGCCAGACCCAAACCGT
GGCGGCGCAGGCCAGGCTCTGGCCGTTCCANGCCGNGGCGGCAGTCCACGCCGATCAGGC
CCACCGNGAGCGGAACGAG

Sequence 18

GGGAGTCGACCNCGCGTCCGGGCGGTGGGTGTCCGCTTCTCTCTGCTCTTCGACTGCACC
GCACTCGCGCGTGACCCTGACTCCCCCTAGTCAGCTCAGCGGTGCTGCCATGGCGTGGCG
GCGGCGCGAAGCCGCGCTCGGGGCTCGCGGCGTGTGGCTCTGGCGTTGCTCGCCCTGGC
CCTGTGCGTGCCCCGGGGCCCCGGGGCCGGGCTCTCGAGTGGTTCTCGGCCGTGGTAAACAT
CGAGTACGTGGACCCGCGAGCCAACCTGACGGTGTGGAGCGTCTCGGAGAGTGGCCGCTT
CGGCGACAGCTCGCCCAAGGAGGGCGCGCATGGCTTGGTGGGGCGTCCCGTGGGCGCCCCG
GCGGAGACCTCGAGGGCTGCGCGCCCCGACACGCGCTTTTTTCGTGCCCGAGCCCCGCGGC
CGAGGGGCCCGCGCCCTTGGGTGCGCCCTGGTGGCTCGTGGGGGCTTGACCTTTAAGGAC
AAGGTGCTTGTGGCGGGCGCCGAGG

Sequence 19

NATGTNGNNCNAAAAAGGCCNGCNTTANAGGCCAGGAAACNCGTAAAAAGGGCNCGCGTT
GCTGTGCGTCTTTTCCATAGGCTCGCGNCCCCCTGACCNAGTCATCATCAAAAAATCCGA
CNGCTCAAGTCATGAGGTTGGCCGAAAACTCCGACAGGGACTTNTAANAGNATACCCANG
GGCGNTTTCCCCCTGGGAAGGCTCCCTTCGTGGCGCNTCTCNNTGTTTCCAGACCCCTGC
CCCGCTTTACNCGGNATTACCTNGTCCCCGCCNTTTTCTTCCCTTTGNGGAAAGCGGT
NGGGCGCCTTCTCNTCAATTAGGCTTACCGCCTGNTAANGGTATTCTCAAGTTNCGGNT
GTANGGGTGCCGTTTTCGCTTCCAAAGNCTGGGGCCTTNTGTGCCACCGGAAACCCCCC

Sequence 20

TTCGGGAGTCGACCNCGCGTCCGCCTGGAGCCGCCAGAGTTTCCGCACCCGGGAGGGAGA
TGCGGGCCGGGGCTCAGGCTCCTTGCAATTGTAATTTAGATTGAGAAAGTGGTTTATCCTT
TGA CTGGAAAAGAAAAGTAGCTGCAGTATTTCCCCAGCACTTGCTGAGAGCATGCCGTAT
GCCAGGCTGTGAGGCTCGAGAGACAAGCAGTGGAAGAGTTGCGGCCTGTTTCATCTCTGG
ATTGTAAATCTGAGCCTCCTTCTGGCCCCGGAAGGGGACAGCATCACGATGGAATGATT
CCTAACCAGCATAATGCTGGAGCCGGGAGCCACCAACCTGCAGTTTTCAGAATGGCCGTG
TTGGACACTGATTTGGATCACATTCTTCCATCTTCTGTTCTTCTCCTCATTCTGGGCTAAG
TTAGTAGTGGGATCGGTTGCCATTGTGTGTTTTGCACGCAGCTATGATGGAGACTTTGTC
TTTGATGACTCAGAAGCTATTGTTAACAATAAGG

Sequence 21

CGACCACGCGTCCGGCAGCCGCGGGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGGACCC
AGCGGGCCAGGTGGGGACGGCGCGGAGCGGGTGCGGGAGATGCCGTGCGGGACTGGGGCC
ACCTGAGCGGCCCGCCTCGTCCCCGCCTTCTGTGGGAAGGATGTGCGCGCGGATGGCCGG
TCGCACAACAGCGGCCCTCGGGGGCCCTACGGCCCTGGCTCTGCCTCCTGGTGGCCCT
CGCCCTGGACGTGCTGAGAGTGGACTGTGGCCAGGCTCCCCTGGACCCTGTCTACCTGCC
GGCAGCCCTGGAGCTCCTAGACGCCCTGAACACTTCCGTGTGCAGCAGGTGGGGCCACTA
CCCACCTGCCAACTCCTCTGAGCTCCCGATCTGAGACCTTTCTGCTCCTACAGCCCTG
GCCAAGGCCAGCCACTTCTCGGGCCTTCTACCCAA

Sequence 22

TABLE 1

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CGCGTCCGCCCGGTGCCTCCGCCCATGGAACGCGCGGAGTGGCGCCGCCGCGGCTACGCG
CCGCTGCTCTATCTGCAGTCACACTGCGACGTGCCAGCGGACCGGGACCGCTACGTGCGC
GAGCTCATGCGCCACATCCCGGTAGACTCCTACGGGAAATGCCTGCAGAATCGGGAGCTG
CCTACCGCGCGGCTACAGGACACAGCCACGGCCACCACCGAGGATCCAGAGCTCTTGGCT
TTCTTGTCGCCGTATAAGTTCCACTTGGCCCTGGAAAATGCCATCTGTAACGACTACATG
ACAGAAAACTGTGGCGTCCCATGCACCTGGGCCGCTGTGCCCGTGTACCGCGTTCTCC
CTCTGTGAGGGACTGGATGCCGAACAATCACTCCGTCATCCTGATTGATGATTTTGAGTC
TCCTCAGAAGCTGGCAGAGTTTATTGACTTTCTGGACAAGAATGATGAGGAGTATATGAA
ATACCTGGCATACAAGCAACCT

Sequence 23

CGCGTCCGGCTGGGCGAATNAGGGATTCCGGTTCACAATGGATGCTGATAAAGAGAAAAGA
TTTGAGAAAATTTCTTAAAAATGTGGATGAAATCTCCAATTTAATTCAGGAGATGAATTC
TGATGACCCAGTTGTGCAACAGAAAGCTGTCTGGAGACAGAAAAGAGACTACTGCTTAT
GGAGGAAGACCAGGAGGAGGATGAATGCAGGACCACCTTGAACAAGACTATGATCAGTCC
TCCACAACTGCTCTGAAGAGTGCAGAAGAAATAAACTCAGAGGCCTTCTTGGCATCTGT
GGAGAAGGATGCAAAGGAACGAGCCAAGAGAAGAAGGGAAAAACAAAGTCTTGGCGGATGC
CCTAAAAGAAAAAGGGAATGAAGCATTGCTGAAGGCAATTATGAAACAGCTATCCTGCG
CTACAGTGAGGGGTTTGGAGAAGCTGAAGGACATGAAAGTGCTGTACACCAACCGAGCCC
AGGCTTATATGAAACTTGAGGA

Sequence 24

GGGAGTCGACCNCGCGTCCGCTCCCTCTGAGTTGCGCTGGGCTTGGCTGCTGCACCATGA
CCCTGGAGGCGATCCGCTACTCGCGGGGCTCCCTGCAGATCCTAGACCAGCTGCTGCTGC
CCAAGCAGAGCCGCTACGAGGCGGTGGGCTCGGTGCACCAGGCCTGGGAGGCCATCCGCG
CCATGAAGGTGCGGGGCGCCCCGGCCATAGCCCTGGTGGGCTGTCTCAGCCTCGCCGTGG
AGCTGCAGGCGGGCGCCGGGGGACCGGGACTCGCCGCGCTCGTGGCCTTCGTGCGCGACA
AGCTGAGCTTCTCGTCACCGCCCGGCCACCGCTGTCAACATGGCCCGCGCCGCCCGCG
ACCTGGCTTGATGTTGCAGCCCGGGAGGCCGAACGGGAGGGGCGCTACGGAAGAGGCCGG
TCCGGGAGAGAGTGATCTGCTGCACCGAGGACATGCTGGAGAAAGACCTCAGAGACAACC
GAAGCATTG

Sequence 25

GGAGTCGACCNCGCGTCCGGGATAACGAAGCTGCTACCATGATGATGGCTGATCTCATGT
TCAGAAAACAAGACTATGAACAAGCAGTGTTTCATTTACAGCAGCTTTTAGAACGTAAGC
CAGACTCCTCGAGTTCAGGGATCACACCATATTCCCAATATCAGACAAAATGCCACACAC
ATGGATGTGGCAACATAGATGTTTATTGGTTGAATGGATCAGTGAATGACTGTAAAACAC
CAAGTCAATTA AAAACACAGCAGGAGAATCGCTTGAACCTGGGAGGTGGAGGTTGCCGTG
AGCCAAGATCACACCACTGCACTCCAGCCTCGGTGACAGAGTGAGACTTGGTCTCAAAAA
CAACCACAAAATTTTAAATAATTATATGACATTATCTCGTTTGATTGATCTCCTAAGAAG
ATGTGGAAAACCTCGA

Sequence 26

ACCGTCCGGGGCCATCCAGGAGAGCCTCCTACCAGCACAGAAGGCCTGTGCCCCAGCGCC
CTGAGCGAGACAAGCCGTTTTGATAATGACTTGACGCTAGCCATGGAGCTCTCTGCCAAA
GAGCTGGAGGAATGGGAGCTCCGGCTCCAGGAGGAAGAGGCTGAGCTCCAGCAAGTCTTA
CAGCTGTCACTCACTGACAAATAGACCTTTCAGCCTGTGAGCCTCTGCACAAAGCAGAGG
CTGTGGGCTGTACAGATGCTGTGTCAACCAGGGCCCTAGGGCTAAGGGCCTGCACCTTG
CGTGCATGCAGCAGGCAACAACCTGCCCTTCTTTATGCAGAGGTGCAGAACCGAGGACTC
CTGGGCCCATCCAGGCTGCTTCCTTGGGGTGG

Sequence 27

NCCNCGCGTCCGGCCGGCGATGCCGCGCCCCCGGGCCGGGCTGTAGCGGGGCGCGGCTG
GACGTGTGCGCCGGGCGAGGCGGGACATGGAGGTGGTGGACGAGACGGAGGCGCTGCAGCG
CTTCTTCGAAGGCCACGACATCAACGGTGCCCTGGAGCCCTCCAACATAGACACCAGCAT
CCTGGAGGAGTACATCAGCAAGGAGGATGCCTCCGACCTCACACTGCCGGACTCTCCCCC

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AGACTCGGGCTCCGAGGCCTACTCCCCCAGCAGGTGAATGAGCCCCACCTNCTGCGCAC
GATAACCCCTGAGACACTGTGCCACGTGGGGAGTGCCCTTC

Sequence 28

CGCGTCCGCGNAGGGAGGGCGGAGCGAGGCGCAGGCAACCGGGCAGCAGGCATGATGCCCT
CGCCTAGTGACTCCAGCCGCTCGCTGACCAGCCGGCCAGCACCAGGGGCCTTACCCACC
TNCGCCTNCACCGACCCTGGCTGCAGGCCCTGCTTACGCTGGGGCTGGTCCAAGTGCTCC
TGGGCATACTGGTGGTCACCTTCAGCATGGTGGCCTCTTCCGTACCACCAACCGAGAGCA
TNAAGAGGTCCTGCCCGTCTTGGG

Sequence 29

ACGCGTCCGATTTTAGTNGCAAGGAGTCCATGTGTTCAACTCCAGCATTTCCTGTGTCTC
CAGAGACACCGTATGTGAAAACAGCGCTGCGCCATCCTCCGTTCCAGCCACCTGAGCCCC
CGCTGAGCAGCCCAGCCAGTCAGCACAAAGGAGGACGTGAACCACGAAGCTGCCCTGAGA
CGCTCACTCACGCTGTGGGGATGTCAGAGAGCCCCATCGGACCCAAATCCACGATGCTCC
GGGCTGATGCGTCTCGACGCCCTCCTTTCAGCAGGCTTTTGCTTCTTCTGCACCATT
CCAGCAACGGCCCTGGGCAGAGGAGAGAGAGCTCCTTCTTCTGCAGAACGCCAGTGGGTG
GAGAGCAGNCCCAAGCCCATGGGTTTCCCTGCTGG

Sequence 30

CCGGTTNCTTGTNNGTTNATTGATTTAAAATAGAATATCAATTGAATTTAGAAAATTCTC
AAAAGCCAGTTTAAATGCTGTTTCATCTTTTAAGGCCAAAAAAGTTTAAATCCAGAGGCAGT
CTTTCATTCTGCACTAATTTATAATTTAGATCAAAGAACTAATTATATATCTCAAATTTA
ATAATAAAAAGGTATAGTAATGAGAATTAATTTATGGTAAATTATATAACTCAGAATGT
TAAAGTAACTTGAAATTCCTAATCTAAGTTAAGTATCTTTTATTTCTTACTTGTCTCTG
TTTGATTTATTAAGGGAAAAGAAAATTTAAGGAGTTGCCAGTATTTCTTTGTCTATTGA
AAGTGGAATGTTTATTCACCCCTATTTATATACTTAAAAGACATTGTATTGGCCTGGTCT
CGAACTCCTGACCTCAAAGGTGGATCCACCCACCTCGGCTTCCCAAAGTGCTGGGATTA

Sequence 31

GCCGGTGATTTTGAACAATTCTGAAATATTTAGGTAAGATTAATAACATCCAATTACAA
ATATATGTTTCAATATTTTATACGTATGTCTACTTTGAAAGTTAAACCAATAGTATAGAA
AGCCTAAGAATGAACACTGATTGGACATACTCACAGAAATTAAGGGAAAAACACATATTG
TAAAATTCCTGTCAATGTTTGAGTAGAATACAGAAGTACATAGCAGTCTTCAATTTTAA
ACACAATTATGGGCTTATAACTGGACGTGACATGCATCATTTATTAGAACAATATTATTT
ATTTATACTAAGTAAGGATATAAGATCACAGAAGCTTAGTGTTATAACGGAGACTTCACA
GACATTCATACTAATGTTTTCTAAGGCAAATAAGGGGCATAAACCAGAACTCATGGGTC
AGTGCCAGAGGTAAGTATAAAAAGGTTATGTATGAAAGACATTTATTTATAGGAGAAATTT
CTGAGGGATTCTATGCCTTTTCAACTTA

Sequence 32

NCGTCCGGGAAACTGGTTCNGATGGTGTCTGCCAGGAGCGCCTGACACGCACCTTCACA
CGCAGCAGCCACACCTACACCCGCACGGAGCGCACGGAGATCAGCAAGACGCGGGGCGGG
GAGACAAAGCGCGAGGTGCGGGTGGAGGAGTCCACCCAGGTGGCGGGGACCCCTTCCCT
GCTGTGTTTGGGGAATCCTGGGCCGGGAGCGCCTGGGATCCTTCGGCAGCATCACCCGG
CAGCAGGAGGGTGAGGCCAGCTCTCAGGACATGACTGCACAGGTGACCAGCCCATCGGGC
AAGGTGGAAGCCGCAGAGATCGTNGAGGGCGAGGACAGCGCCTACAGCGTGCGCTTTGTG
CCCCAGGAAATGGGGCCCCATACGGTCGCTGTCAAGTACCGTGGCCNGCACGTGCCCGGC
AGCCCTTTTCAGTTTACTGTGGGGCCGCTNNGTNGAAAGGTGGTGCCCAAGGTGCGGG
CCCGGAGGCAC

Sequence 33

CCGCGTCCGCAGGAAATTGTTAAAAATAATTTGGGGGTGTTTATTGGGGAAGGAAACAGG
GCCTTGACAGTGGAGGACTTGGAAGACATGTAATTTAAGATATAGAGTATGATTGTTGGA
AAATAAGCATGGAGATCCAGAAGGAATCTTAAGAGTTTTTCTATGCAAGTGAAGATGGAA
GAAAATATGTATTTTACAAAAGATAAATTACAAGTACCTTATTTGCTTTGCAAAATAACT
TATCATGTTCTTCCACTATTTTATTATATTTTAAATTTAATGAACTTATATAACATTT

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ACACTAAATTTTAAATACATGGCTCAAGACAAAAAATGGGGAAAAATATTTTTAAAAA
TCACCCCAATCCTGGTACTCAGACATAACCACTATTCAAACCTGGCAGAGTAATATTTT
TCCTGTCTGCATGTGTGCCACNATGTGTGCATGCATACCACAAAGTAGATGTTTTACTAT
ATCTCCTGGGTATTATCTGCTTTTTTCCC

Sequence 34

ACGCGTCCGGGACAAGAGAAACATAAGCNGGAAAAAAGGAGGAGGAATAAACACACGCCT
GTCCATAATAAACTCGCTCTTGAAGACTCAGCGGCAGCCCTGCACCGGAGACTGACGAC
TTGCGCGGCTGTGACCTCCGCCCTGCAGCGGACCCTCGACTGCCCTGCACTGCGGCTCTG
GAGGCCCCGACTCAGTGCATGGGAAAGAAATCCTCACTATCAGAAAACAGAGGGGCAATC
TGCTGCTCTCCCTTTCCGGCCAAACACGTACCCATCAACCGGATACCTACCAAGAGGCT
TTCAGAGGAGGCGCCCAAGGTCTCCAGGCCCGCCCTCCCCAATCACGCTCCGCTCAGC
CCCCCAACTTTTGGCCTCCGGGAAGTTCGAGCGTNTCTCACGCTTGGCAGGAAGTTCC
CGCCAAGGCTTTCGGAATCCTTTAAAAAGCAACGCTTGCGCTGGGCGGGGCTTTGGTG

Sequence 35

CCCCGCGTCCGGTAGATTGCTTGTGGCTGGCAGTGAAGATGGTGGAGTTCAACTTTTTGA
TATAAGTGGGAGGGCTCCCCTCAGGCAGTTTGAAGGCCATACAAAGTAAGAGACAGTTGG
TTTCTGTGTGTTCTGGTTTTATTTTGTGTAAGCTCTTTTTTCTCTGGACTTTGGTTAA
AAAGATAGAGATCAGTTTTATGGAGATTATTTGCCTATAGGTACTATATTTCTGATTGT
TCTAAGAGTGCTTAACCTGGGTTCCGTGGTCCAGTTTCATGGGGCTTATGAATTCCTAG
AATTGTATGTGATATTTTAGGAAATACACGTTTATCTAGGGAGCTACTCTGTAGCTTTTG
GTTAACTTTAGTGGGGTCTGTGGCCAGCTGAGATTATGAATTACTGACCTGAAGACAAC
CTTACAGCTGGTAAATGACAGCTCTATAGGCCTGTACTGTCTTAGAGGCTCTTATGTTGAA
GTCAAGTANGAAGGTGGATTTTCTTCTGAATTATAGTGTTTTGCCCTTAATAA

Sequence 36

CNCGCGTCCGCGGACGCGTGGGGGCGAGGGCCGCTGGGGCCGCGAAGTGGGGCGGCCGGG
TGGGCTACGAGCCGGGTCTGGGCTGAGGGGCGCGGCTTCGCGGTGGACCCAGCCCGGCA
ACGGGAAGGCGAGCTCTCCTCCACCGTCCAAAGTAACTTTGCCGCTCCTTCCGCGGCGC
TCCCGAGTCTCGCCGCCGCGGGCCGCGCAGTCCGCGAAGAGCCGTCCTGCGTCAGGG
CCTCCTTCCCTGCCCGGCGCGGGGCCACTGCGCCATGGACGCCACAGCACTGGAGCGGG
ACGCTGTGCAGTTCGCCCGTCTGGCGTTTACGCGGACCAAGGCGGCTACTCCGAGG
CGGTGTTTTATTACAAGGAAGCTGCACAAGCCTTAATTTATGCTGAGATGGCAGGATCAA
GCCTAGAAAAATTTCAAGAAAAA

Sequence 37

GCGTCCGCGGACGCGTGGGCCGCCGCCGCCGCCGCCGCGATGTGACCTTCAGGGCCG
CCAGGACGGGATGACCNAGGAGCCTCCGCCCGCGGNGCCCGNGGCTCGCCTCGGCCTCCC
GGGCGCTCTGACCGCGCGTTACCCGGCCCGCCATGGCCCCCTTCTCTCTNGCCCGGGCNC
ACGCTCGACCCTGCGCNCGTATCGCCAGCAAGTCTGCTGCCTGCATGCTGCNTGGCTCGC
GAGNNGTTGGCGCGCNTTGCNCTGNNGCCTGTTTGCACGAGCNGCCGCCGAGGCCCACTG
CANGNTTANCTCGACGGTCTCCNAAGNCANACCGCNCNCCGCGNCCCTTTCAAAGNTCNT
TTCNCGAGGGGANGGGCNCAANGGCCAGGGNCCCCACNCNTGGGGAAGAAGGGNAGGAG
TTNGNCNGATGNGNATGAGNAANCCTGTAGNCAAGANCCCGTCCCNAAGNNGNAGNGNC
AGCCCNNGGGAAGGGTTGGTTTTCNANGNTAAACCGNAACCCCCCGAAGTNAACCGG
NGATTTTAAATTTATTTTACCCNCANANGNAAATAACCTTTNAANAACCATGGGNCATT
NNAAANCAAAAGNTAAATTNGGGGGNAACTTAACCGNTAAACCANCCCCAAA

Sequence 38

CNCGCGTCCGCGGGTCCCGCCGCGGGTACCTGGGCACTGCGCCCCATCTGGACTGAAA
TGGGGACACCCCTTCGGGGTCCCAGGCTCCTGGCCGTATTGTTCTCCTTCTCCTCGTGA
TAACTCCGCACTGGAGGTGGATTCCGTCCAAGACGCCCAACGTGGCTCCGCGTAGCAATC
AGCGCTGCAATCCTGGCGGTACCTCAGCGGCGGCGTCTCTCTCTGCGCCTCACACTCGC
AGCCCGCGGCCCTCCCCAACTTAGGGCGTTTACAAAAGAACTACTCCAGACGCGCTGCA

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AAGGGAGGGCGCATGTGCCCCGAAAGCTGGCGATCAGACGGGGGGGGGCATTCTGCATGTGT
GATGTTTCTGGGGGCGGTGGGGAGTGTGTGTGCGGGTCGGGGGGCGGG

Sequence 39

NTGGTCTTTCTTCCTAAGAAGGAGATGGAGCCAATTTCTCACAGCTCGTGCCTCAGTACT
GAGGGTATGGAGGAAAAGGCAGTCAGTCAGTGTCTAAAAATGACGCACGCAAGAGACGCT
CGGGGAAGATGTAGCTGGACCTCTGAGATTTACTTTTCTCAAGGTGGACAAGCTGTAGCC
ATCGGGCAATTTAAAGATCGAATTACAGGGTCCAACGATCCAGGTAATGCATCTATCACT
ATCTCGCATATGCAGCCAGCAGACAGTGGAAATTTACATCTGCGATGTTAACAACCCCCCA
GACTTTCTCGGCCAAAACCAAGGCATCCTCAACGTCAGTGTGTTAGTGAAACCTTCTAAG
CCCCTTTGTAGCGTTCAAGGAAGACCAGAACTGGCCACACTATTTCCCTTTCTGTCTC
TCTGCGCTTGAACACCTTCCCTGTGTACTACTGGCATAAACTTGAGGGAAGAGACATCG
TGCCAGTGNAAGAAAACCTCAACCCAACCAACCGGGAT

Sequence 40

CACCGNNGCGCTCCTTCTGCCGCCAGGGCGAGGCTGGCACCCGGCCAGCGCGGGCAGGG
CCACGGGTGCCCGCTGTTTCCCGTTGTGGAAGGCGCTCAAGGTGCGCGGCCCGGGGCG
CGCTACTGGGGGCGCCCTCCGCGGTGGGCAAGCGCGCCAGGGATCGGCCTGGGCANGCCG
CGGGGCGCGCAANGCTGCGCTTCCCTACGCCCCCCTCGCTTCTCCGGCACGGCGGC
AACGGAGATTTCTCTCGGGGAACTACGCGGATCCTTTTCGGGGATCCTCGCCCCGCC
CAATTTCTNCGCCCCCTCCCCTTGTGGGGCGCCTGGGCTGGCCCGCGCAGGGGA

Sequence 41

CNCGTCCGGTTCCTAACACAGACGAACTCAGCTTCCTTTGCCATGCCTCTGACTCGAGCC
AGCCTTTCTTTTATCCTCCGTTTTTCTCAGATTCCTCCACACAGTCTTTTCCAGGTCT
TAGATCGCTTCCCTCGCCCCAATCTTTCCTTGAACCCCTTTTCCAGTGTCCCAAAGCTGT
CCACTCTTACGCCTCTTCCAGAAACACAGGCTACCTCCCCCAATCCCCAGTGCCACTC
TGGATTGTAATATCCCACTCAGGAGCTTCTTCTTGAATTTCCCTCCCCCACCCCCA
CCCTCCCCGGGTGCTCTGTTTTCTTCTATGAAGCAAATATTACTCATCAAATATAGGAAC
AAAGGCCTAAGTCCTTTCTGNGCTTATTTCTTNGGGTGACTGGATCTTAGATCCTATCA
TTTAAGTAGATGATGGTT

Sequence 42

GGTGTGACCNCGCGTCCGCGCTTCTCNCCTCGGCCCGTGGAGCCGGGGCGTCCGGGCGT
AGCCCTCGCTCGCTGGGTGAGGGGTGCGCGTCGGGGGAGGCAGAAGCCATGGATCCCG
GGCAGCAGCCGCCGCTCAACCGGCCCCCCAGGGCCAAGGGCAGGCCGCTTTCGAGCCC
CCGCGAGGGGCGAGGGCCCGCGTCCGGACCCGGGCAACCGGCACCCGCGGCGACCCAGGCG
GCGCCGCGAGGCACCCCCCGCGGGCATCAGATCGTGCACGTCCGCGGGGACTCGGAGACC
GACCTGGAGGCGCTTCAACCGCGTCATGAACCCCAAGACGGCCAACGTGCCCCAGAC
CGTGCCCATGAGGCTCCGGAAGCTGCCGACTCCTTCTTCAAGCCGCGGAGCCCAAATC
CCACTCCCGACAGGCCAGTACTGATGCAGGCACTGNAGGAGCCCTGACTCACAAGCATGT
TCGAGGCTCATTCTCTNCAGCTTCTTGCAGTTGGGAAGC

Sequence 43

GTCGACCACGCGTCCGGGAGCTGCGGGCGCCCTCCCTTATCGCCTTGGCAACGACCCAGCC
GCGCCGCGAGGAGAACC GGGAATGGAGGTCTGGCGTGAGGGGCGCCGAGCGAGGGGAGG
CGCGGGCCACGGGAGTTCGGGAGTTCGGCGTTGCCCGGAGTCCGCGAGTCTCGGCGG
GAAGGCTGTCCCGGCGCCTCAGGCAGCTCTGCGTGGGCGGGGTGACTTCTCGCGATCC
CCTGCGCGAGGTGAAGGGCAGGGACCTTTGCCGCGCTTCCACGCGCCGTGCCCCACCGG
CGAAGTGGGCTCCATCTTCTTCAAGACTTGTGCTTCCGCGACAGGGCGCCCGTGGGTT
CTTCCCGGCCCTTCCGTACCGTCTCTTCCAAGCGGGCTCCGGAAAGCGGGTTCCTTG
TCTTTCGGACGCATTTTACCCCGCGCCGGGGAGGAGCTTNCGGGNAAGGGTTCACGG
CGGCCGAGGGTTTTCC

Sequence 44

CGTCCGCGAGACTCCCGCGCCACCACCCCGGGCGGAGCTGCTGCTGAGCCACTCAATCT
GAGCCCTGGCTACTAATAAAGTTCGTTTAAAAATCATAATCATTCTTAAGAGAGCGAAAG

TABLE 1
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AGGGTGCGAACTAGCCGCTCGGCCCGCANGGAGAGCTGGCGCGTCNGGAGGAGACAGCN
GCGGCAGCGGTTGCGCCGCGACCAAGAGAGCCGGTGGCGCCGGGCGGCGGGTCCGCGGC
CGGTGGGGGACNGTGAGTAGCGGCTCGCGCTGCGGTGCAGCGGCGCTGCACTCACTCGCC
CTCTCCAGGGGCTGGGGGTTTCGTCCGGCTCCACTGGGGAAGACTCAGCTTCTCCCCGGGG
TCCCCGGTTGTGCCTTACTCTCCGGAGTGGGCAGGGGTATCGAGGGCAGGGGCCTCCCGG
CCCGGCTCCCCCATCCCCGGTTCGGACCGACGAGCCGCCGGCTTCTTCCCTTCCCTGAG
CACCGATCCCAAGTTCCA

Sequence 45

TCACCACGCGTCCGGGCGTCCGGGTACCCGAGGGCTCTCCCGCGTTGCTGGCACCGCTGG
CGCCGCGGTCTCGTAGCGCATGGGCCTCCTCCGAGGCGGGCTCCCATGCGCTCGGGCCAT
GGCGCGCCTGGGCGCTGTGCGCTCCCACTACTGCGCCCTGCTGCTGGCCGCGGCGCTGGC
CGTCTGCGCCTTCTACTACCTCGGCTCAGGCCGGGAGACCTTCTCCAGCGCCACCAAGAG
GCTGAAGGAGGCCCGCGCCGGGGCTCCCGCCGCGCCCTCGCCGCCGCGCTGGAGCTAGC
GCGGGGCTCCGTGGCGCCAGCCCCGGCGCGAAGGCCAAGAGCTTGGAGGGCGGCGGTGC
CGGGCCGGTGGACTACCACCTGCTGATGATGTTACCAAGGCGGAGCACAATGCCGCGCT
GCAGGCCAAGGCCCGCGTTCGCGCTTTCGCTCA

Sequence 46

CCACGCGTCCGTGTGCGGCCGGCGCTCCCTTCTCTGCCNGGTGGCGAGTACACCTGCTCA
CGTAGGCGTCATGAGGTCTCCGGTTCGAGACCTGGCCCGGAACGATGGCGAGGAGAGCAC
GGACCGCACGCCTCTTCTACCGGGCGCCCCACGGGCCGAAGCCGCTCCAGTGTGCTGCTC
TGCTCGTTACAACCTTAGCAATTTTGGCCTTTTTTGGTTTCTTCATTGTGTATGCATTACG
TGTGAATCTGAGTGTTGCGTTAGTGGATATGGTAGATTCAAATACAACCTTTAGAAGATAA
TAGAACTTCCAAGGCGTGTCCAGAGCATTCTGCTCCATAAAAGTTTCATCATAATCAAAC
GGGTAAGAAGTACCAATGGGATGCAGAACTCAAGGATGGATTCTCGGTTCTTTTTTTA
TGGCTACATCATCACAGATTCTGGAGGATATGTTGCCAGCAAAATAGGGGGGAAAAT
GCTGCTAGGATTTTGGGA

Sequence 47

CGCGTCCGCGGACGCGTGGGCGGGGCGCGGAGCCGGGGCCGGGGCATGCGCCGTCTCCGN
CTCGGGGCCGNCGGGGGCGCCCTGCTGAGCGCTACCCACGTGCGTCCGCGCCACCTCGCG
GGCATCCCCCGCGGCAAGGCCCCCCCGGGAGCGGNTCCCGGGCGCCCCGAAGTACCCCC
AACTTTGGGCGAAGTTTGCCTGCGCCTCTCCCCGCCCCACGCGGCGCGCCGGGGCCGCG
GACGGNAGCGGCCCCCGGGGATGCGCCTTCCCGGGTACCCCTGGCGCGCCCTGCGTGC
TGCTGNTGCTGCCGNTGCTCGCGCCGCTGATGGGAACGGGTGCGCCGGCCGAGTGCGGG
TCCGNGTGCGGCTGCCGGACGGCCAGGTGACCGANGAGAGCCTGCAGGCGGACAGCGACG
CGACAGCATCAAGNCTCGAGCTGCGCAAGCCNGACGGCACCCCTCNTNTTCTTNACCGCC
GACTTTAAGA

Sequence 48

GCGTCCGCTGCATTGCGCCACCGACTCCACTATGTTGAAGAAATTCGACAAGAAGGATG
AGGAGTCAGGTGGAGGCTCCAACCCATTCCAGCACCTTGAGAAGAGTGCGGTACTCCAGG
AGGCCCGTGTATTTAATGAACTCCCATCAACCCTCGGAAATGTGCCACATCCTCACCA
AGATTCTTTATCTCATAAACCAGGGGGAGCACCTGGGGACCACGGAAGCGACCGAGGCCT
TCTTTGCCATGACCAAGCTCTTTCAGTCCAATGATCCACACTCCGTCCGATGTGCTACT
TGACCATCAAGGAGATGTCTTGCAATGAGAGGATGTCATCATTGTACCAGCAGCCTAA
CAAAAGACATGACTGGGAAAGAAGACAACCTACCGGGGCCCGG

Sequence 49

ACGCGTCCGCAGAANGCTCTCAGATGGGACAGTCTTTTACTTTTATTCTCACCTCTGTAA
ATAGCAGGACAGGTTGGGGTGGGCCTGACTTCTATTCTGCTTTCAGGGGGTACTTACTGG
AAAATCAACTTAGGAAGTGAATTTGAGGGTTGGTGAATTTTAAGCCCAGCCTCTGATCC
TTGGTTGCACAAAGCCTAATTTCCAAATATTTCTAACAGATTCAAGACTGTATTGGCAAA
GAGGTAGAGAGCTATGATAATGACATAAATTACATAAAAATCCAGTTGAATGAATAAGAA
GGAATTTGGGCGTATAACCCATGGAACACCAATGGTGCTAAGAATTTGCCAAACCCTCAG

TABLE 1
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CTTCGTATAAGTCCCAAAGAACTCAGGCTTATAGCACTAAGCAAATTACCAGTGGGAGGA
GGAGGACCTGCCACGGAGCTGGATAATTACATTTAAATATTTTGGCANTCTGTTGGAGA
C

Sequence 50

NCGCGTCCGGCAGGCGGGTCTGATAGAGAGCGTTCCANGCCGTCTGTATATCTCCCCAGATAC
CTGAAACTGACCACCTGAGTACGTTTTCCATTGCTGAGCTGTTCCCTGATATCTGGCC
ATGCAACGGAGATCAAGAGGGATAAATACTGGACTTATTCTACTCCTTTCTCAAATCTTC
CATGTTGGGATCAACAATATTCCACCTGTCAACCTAGCAACTTTGGCCCTNAACATCTGG
TTCTTNTTGAACCCTCANAAGCCACTGTATAGCTCCTGCCTTAGTGTGGAGAAGTGTTAC
CAGCAAAAAGACTGGCAGCGTTTACTGCTCTCTCCCCTTACCATGCTGATGATTGGCAT
TTGTATTTCAATATGGCATCCATGCTCTGGAAAGGAATAAATCTAGAAAGAAGACTGGGG
AAGTAGAT

Sequence 51

GCGTCCGGAAGGTCCTTGAGCCATCTGGATGGCGGGCAGTCTGGCACACTAATGTGTTCA
AGGTGCTGGTTGAGATCACAGATGTGGACTTTGCAGCCTTGAAGGCAGTGGTGAGGCTTG
CTGAACCATACTCTGTGACTCTCAAGTGAGCACTTTTACCATGGAGTGCATGAAGGAGC
TCCTTGATCTGAAGGAGCATCGGTTGCCCTGCAGGAGCTGTGGGTGGTGTGTTGATGATT
CAGGA

Sequence 52

GTCGACCNCGCGTCCGGAAAAAATAATGACCCAGAGATATTAACAACCTGACCTGGTTA
TACAGTTAGATATTTGCACAGTCTGGACTCAAACCTGGAGGCTTCTGACTCCTCATCTAGG
CTCCTCTCACTCTGCCATTGCATGGGTTTTCTCATATACCTTCTCTCATAAGGTTTTAC
AAATTTGTCACCGTCAAATAATTATCAAAATTATTCACTATTATAGATGAAAATAATG
TGCTTATAAAGATTAAGTAACTTTCTGAGGGCGCAGGTATCTGGTTCACATAACAATA
GCCTGGCTTAGAATAAACACATATTTCTGGTTCTGAAGTTGGTGTCTTCTTACCCTT
TCTGCTGTCTCTAAAGATAAAGAATGTTATTGGCTCACTGAATTAATCCATTCTGTTCC
TGGCTGAAATAAAAATTGGTATATTCCTACGTGAAGTGTCAACAGGAAGGGGGCTTTTA
CAACTTCCTTT

Sequence 53

GGAGTCNCCACGCGTCCGCGCGCTGGAGGAGTGGAGCAGCACCCGGCCGGCCCTGGGGGC
TGACAGTCGGCAAAGTTTGGCCGAAGAGGAAGTGGTCTCAAACCCGGCAGGTGGCGAC
CAGGCCAGACCAGGGGCGCTCGCTGCCTGCGGGCGGGCTGTAGGCGAGGGCGCGCCCCAG
TGCCGAGACCCGGGGCTTCAGGAGCCGCGCCCGGAGAGAAGAGTGCGGCGGCGGACGGA
GAAAACAACCTCAAAGTTGGCGAAAGGCACCGCCCTACTCCCGGGCTGCCGCCGCTCC
CCGCCCCAGCCCTGGCATCCAGAGTACGGTTCGAGCCCGGGCCATGGAGCCCCCTGGG
GAGGCGGCACCAGGGAGCCTGGGCGCCCGGGGCTCCGCCGCGACCCCATCGGGTAGACCA
CAGAAGCTCCGGGACCCTTCCGGCACCTCTGGACAGCCCAGGATGCTGTTGGCCACCCTC
CTNCTCTTCTCTTGAGGGCGCTCTGGCCCATCAGACCGGATTATTTTTTCAA

Sequence 54

CNCCCGTCCGGAATNCCCATAGTTAGCTGCTGTGCTTTCACAACTTCTTTCTCTGTAAAT
TCCTCGCTTGGCNCTGAGAAGGAAAAAAGATGTTCTGTAAGGGCTCAGCGAGGAATTTAC
AGAGAAAGAAGTTGTGAAACCACCATAGTTAGTTGCTGTGCTTTGAATTTCTTTTGTCA
AATGGCCTCAGCGAAATCTTATTTGCCTATAGCATATCTACAAAAATTTTCTAGACCG
TCTTTTCTACAACCTGGATGGTAAAGTTGATTGAAGTGTGCTCATGTAGCTTTATGTTTG
GGGCATTTGAAGGGCTATGGCTGGACCAGAGTGTAATATAAATGCTTAATAGAGAGGGGA
AAAGAAGAGTGTAAGAACCATTATAGGGCTGGGCTCACGCCTGTAATCCCAGCATTTTGG
GAGGCTGAGGCAGGCGGATCACGAGGTCAGGAGTTCNAGACCAGCCTGACCAACATGGTG
AAACCCCATCTCTCTAAAAATACAAAAAT

Sequence 55

GTCGACCNCGCGTCCGCAGCCTTCCGGCTGCGGAGGGGGCTCGGCGGCGGGCCGGCGGAGAA
AGTTGCTCCGAGAAGAGGCTGGGTGAGCTGGGCCGAGCCGGGCGCGCAGGGCGGGCGTC

TABLE 1
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GCGGGCGTCCCGGGCGGACGCGGCGCGGAGACTGCCGGCGCGTCCCGGGGGTTCCGATTT
GAAGACCTTGCTTCTCATCACCCACTGGATTATGCCCCAGGCTTTCTACCCAATGATCC
TCTTGCAACACGCCGTGCTTCTCCACCTAAGCAGCCCTCACCTCGCCTCCTATGTCAG
TGGCCACCAGGTCTACAGGAACCTTGAGCTTCCACCACAGAAGCCTTTTGGGCAGGAGG
CTTCCTTGCTTGCAGGGGAAGAAGATTATCGAAGGGAGGGGAGCAAGGACTGTGCC
CTGGAGGAGCTATGTAAGCCCCTGTACTGCAAACCTCTGCAATGTACCTTGAACCTGCA
CAGCAAGCCCAGGCTCATTATCANGGTAAAAATCATGGTAAGAAA

Sequence 56

ACCNCGCGTCCGGACCTGTTGGCGACATGGTGGCACCCGTGCTGGAGACTTCTCACGTGT
TTTGCTGCCCAAACCGGGTGCGGGGAGTCTGAACTGGAGCTCTGGGCCCAGAGGACTTC
TGGCCTTTGGCACGTCTGCTCCGTGGTGTCTATGACCCCTGAAAAGGGTTGTTGTTA
CCAACCTGAATGGTCACACCGCCGAGTCAATTGCATACAGTGGATTTGTAAACAGGATG
GCTCCCCTTCTACTGAATTAGTTTCTGGAGGATCTGATAATCAAGTGATTCACTGGGAAA
TAGAGGATAATCAGCTTTTAAAGCAGTGCATCTTCAAGGCCATGAAGGACCTGTTTATG
CGGTGCATGCTGTTTACCAGAGGAGGACATCAAGATCCTGCATTATGTACACTGATCGTT
TCTGCAGCTGCAGATTCTGCTGTTGACTCTGGTCTAAAAAGGGTCCAGAAAGTAATGTG
CCTTCAAACCTTTAACTTTGGAA

Sequence 57

GTCGACCACGCGTCCGTCTCATTTGTGAAGAGGTCTGTCTTCTGAGGAAGCAGGGGACC
CTCACCTGTGAACCAAGTGTGCCATGGGAGCTGCTCCATGTCCAGGTCCAGGTCTCCTGG
TCTGCAGGGAAACGGCACAAGAGGGGCTGGCCTAGGCCAGGAGGATGTGATCTGTCTAGAA
GGGGGCTGACCTGCTTGCTGACCCCGCTTGCTGCTGCCTGGCTGACCTGACTCAGCCACG
GCTGTTCCGAGGGGCCCTTCTGAGTACGAACTTCCAGTTGGAGGATCTGGGTGAAGACCCA
GCTGCTTGAGATAGCAGCCTCTGGCTAGGCCCTTGGCGTGGCCAAGCCAATCAGGCAGGT
TTAGAGCCTGGTGCCCTAGACAGGTCTTCAACCAAGAACAGGGGGTAGCCTTCAAAGG
CCAGCCCTGCCTTCCAACACCGCTCCACAGCGAGGGAAACCAAGGCTCTTAGGGCAGGA
GGCTTGT

Sequence 58

CCNCGCGTCCGGGGAGCAGGGATCAACGGTGGTCCCCGTAAACCTGACAGTAAACCTGAC
AGAGGCTGCAGGAGTGCATTTCCACCCAGGGTGCACTCAGCGAGTGGAACCTCCACACCCG
TTTCTTTGGAGTCAAGGCGCGACCTCTCAGGGAGGAGACTGCTCCTGGTTGCCCACTGCC
GGGTCACTCCAGCTTGCAGTGGAACCTCCGCAGCCTGGCCTCTTCCAGGGTAGCCCTC
ACTCCCCTCTCTTGTCTAGGATAAGGCCGAGGAAGGCTGACGAGTTCAGCTCTGGG
GATGCCCTATCAGCTGTGTACCTTGAACAAATCATTTCTCCTCTTGGGTCTCTGTTTC
TCCAGTGTGAAACGTGGTGAAGGCATGAGGGGCTATGGGAGCCCCAAGGCCTCTTTCAGA
GATCTCCTCTGGGTCCCATGTGACCCCGTGGCTATCCCCAAAGGCAAGAGGGTCCCCAGC
CCTGCACCAAGGCCCTGGG

Sequence 59

CCGAGGAAAGGAGTTGGTTCGCGCAGGTGCGGCGCCTGGGTCCCCATGGCGCTGTGGCGC
GGCTCCGCGTACGCGGGCTTCTGGCGCTGGCCGTGGGCTGCGTCTTCTGCTGGAGCCA
GAGCTGCCAGGCTCGGCGCTGCGCTCTCTTGAGCTCGCTGTGTCTGGGGCCCGCGCCT
GCGCCCCCGGGAACCGTCTCCCCCGAGGGCCGGTTGGCGGCAGCCTGGGACGCGCTTATC
GTGCGGCCAGTCCGGCGCTGGCGCCGCTGGCAGTGGGGTGAGTGCCAACGGGGCCTGGG
TCTNTGAGCCTCCGAGGTGCGCCTTGAGGTGCGGCGGAGCCGCGCAGAAACAGGGCTTC
TCAGAGGNCCCCGGGAGGCGCTTGCTGTCCGCGCTGGCCCC

Sequence 60

CGCGTCCGGTGGGAAGCCAGAAGATAAAACCAAATGGCTGGGCACGTCTTTAGGTTATTC
CTAGCTAAGAGTTAAGAGTTGTAAGCTCTCTCATTTCTTGTCTTCAGCCTTAACTATC
TTTCCTTCTATTAACCTTTATTTGTCTCAGTTACAATGATAGAGGTAACCTTCACATACTAA
AAGAAATTAGGTTACCATGTGAAACATTCTTCTTGGCTTGCTAATGTTATCAGATCCA
AACAGCATCTGAAAGAAAATTTCCAAGTACGATGTTGTTCTCTTGTCTTCTGAAATACA

TABLE 1
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TATCATATGTTAAAGTGAGAGTTTTTATACATGTTGAAAGAAGTTGAATGACATAACAAA
TAGTTACTGAGGCCTCCATTTTCTTACTTCACAGTTAAAATTCCTGTTTCTCTTTGGGTA
TAGGAGGGTAGAAAGAAGTGGGAGAGTAATAGCATTTTAAACACAGAATCAAAAATCAT
ATTAAAAGTAG

Sequence 61

CGTCCGGAGCATCGCGCACTGCGGCCGGGTACCGACGTGGGCATCCGCTACGTGGCCAA
GTACTGCAGCAATGCTGCGCTACCTCAACGCGAGGGGCTGCGAGGGCATCACGGACCACG
GTGTGGAGTACCTCGCCAAGAACTGCACCAAACCTCAAATCCCTGGATATCGGCAAATGCC
CTTTGGTATCCGACACGGGCCTGGAGTGCCTGGCCCTGAACTGCTTCAACCTCAAGCGGC
TCAGCCTCAAGTCTGCGAGAGCATCACCGGCCAGGGCTTGCAGATCGTGGCCGCCAACT
GCTTTGACCTCCAGACGCTGAATGTCCAGGACTGCGAGGTCTCCGTGGAGGCCCTGCGCT
TTGTCAAACGCCACTGCAAGCGCTGCGTCATCGAGCACACCAACCCGGCTTTCTTCTGAA
GGGACAGAGTTTCATCCGGCGTTGTATTACACAAAACCTGAACAAAGCAAATTTTTTAA
AGCAGCGTATGTAAAGCACCGACACCCACTCAAAACAAGCTCTTCTTTCNGGAAGGGTA
TTAAGGAAT

Sequence 62

NCCACGCGTCCGCCAGNCTGTGAAGGATCCCAGACTGGCATATGCAGGAGGAAATGGGGC
GGGCGAGGAGTAAGGACCCCAAAAAGCAGGGGTAGGGAAGGGCCCTCCAGCGCCCCACT
GTAATAGGGGCCCTCATCAATGCCCCATGCTCACTGAATAAAGCACTGCCAGCGAAAGGTG
AAAAGAGGAACAAAGAACATTCTCCTGGACGCCACCCACAGAAAGCCACGTGCAGGCTTG
GCCCTCACCTTGGGGACCTTGGACACGGAGCTGGTTATGTCACATCTGGCTCTCAGAGCT
GGGGCAGCGTCTAGGAGGCCTGATGTAGAAAGCACTCAGCTAAGCCCTAGTTACCGGCAC
ACGGGCACCGCGCCCCCTCTCAGCAAACCTTNCACGTCTTATGAAATTAGCACTGGATT
CCACTTCAATTGGA

Sequence 63

CCCAGTGAATAGGGGCCTCATCAATGCCCCATGCTCACTGAATAAAGCACTGCCAGCGA
AAGGTGAAAAGAGGAACAAAGAACATTNTCTGGACGCCACCCACAGAAAGCCACNTGCA
GGCTTGGCCCTCACCTTGGGGACCTTGGACACGGAGCTGGTTATGTCACATCTGGCTCTC
AGAGCTGGGGCAGCTGTCTAGGAGGCCTGATGTAGAAAGCACTCAGCTAAGCCCTATTTA
CCGGCACACGGGCACCGAGCGCCCCCTNTCAGCAAACCTCCACGTNTTATGAAATTAGCACT
GGATTTCCACTTCAATTGGA

Sequence 64

NCGCGTCCGCTTCATCTTAGGATAAAGTCTAAATCTTTGTTTTTGCTATTGTAATAAC
TCATAAATCCTAGGTTATAAAGATAAAGCCTTAACTTTATCTCATCATCCAGCCCAATT
TCCAGCCACAATGAAGTACTTAAACTCTGTGTCTTTGTAAGTCTGTTCTCTTGGCCTC
CAATTCCTTTTCATCTTTTCCATTGCGTAAAGTTTGTATCCACAGGCCCTATCTTGG
AAGCCTCCAGCAACTTCTCCAGACAGAGGTGTTAGCAGTGTAGGATCAGATTCTCAACC
ACGTCACTCCCATGTCTGGGTAGATATCTCTGCCCAAGTGTCTCATAGCACTTGAGCAG
TACTCTCTAAGCGCCCAGGATCTACCATGTTGCTTTTTTAAATTTGATTAATTTATTTT
TTTATACTGCTCCTTGTGGAGCANGGAGTGTCCAGAGTAGCCCAACCATGTTATATTGA
ATGGATCTGTGTGCATAATGCAGCTGTCCATCTACATCGTATATTTTTGTCTCCTCAAGG
GTAGGGA

Sequence 65

GTTTGTATTCTGGATACAGGGGATACTGGGGCTCGCTATGTGTGTGGAGCCATCCCTTCC
TTGCCCCAGCCCCACCTCCCTCTCAAACCCTCTCTGGCTCTTTCTGAGCTTCTTTCTCTG
CTCCCCAGCTTGCCAGTGCTCAGTGCCCCACTTGGCTCTTTTGCTACTTCGGGTCAGGT
GGAGCCTCTTGGGAATGTGAAGTGCTTACAGAAAGATTGCACTTCAAGAGGAGAGGCTG
CAGGGAGCCATCCTAAACCCAGAGGCCTGGAGCTTACCGTGTCACTTTACTTTTGTACAC
AGGGGTCTCCTTAGTGCCCTCGAGAAGGATTCTTGGCCCTGAGCTTCTACTCCTGAGGCC
ACCTCTGTGCAGCCCCAGCTCCCTCAACTCTAGGCTGTAGTCTCAGTGGGAAAGCCTGGC
TTGGGGGTCTCCTAGGAATGTCCACCTGAAGGCACACTTGATAGGGGCTTGACAACTTA

TABLE 1
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TGCTGCCAAGGCCACCTGAGGAACTCCTGGTGCCTATAAGTTCCACCTTCCCTTCCTTT
NCT

Sequence 66

CGTTCGGCAGCAGCAGCTGGCGGCCAACCGGCACAGCCTGGTGGAGAAGCTGGGGGAGCT
GGTGGCGGGTGCCACGCACTGGGTGAGGGCCAGTTCCTTCCCOACTGCTCTGTCCGC
CACCCACAGGAGGAGACGCCACCCACCCACCCAGCCGNCACCAGCGACCCCOGCCGA
AGACATGCTGGTGGCCATCCGGCGTGGGGTCCGGCTCCGCAGGACCGTACCAACGACAG
GTCGGCGCCCCGCATCTTATGATGGCGCCACCCTCCCCATCCTCTCAGGCCCCAGTGCGA
GCAGGTGGCCTGGTCTGTGAGCCGAGGCACTCAGAGCAAAGGCCAGCCAGGAGAGAGG
ACAGAGCCAGGGCAGAGGCCATGCCACTTTATGGAAAGACACCTCACTTGGATTCCAGCA
TTTAAACAGGAAGTGACTTCTTAGCAAGCCTGGCCAGGACGGAGCCTGCAGGCCTGGGCC
TGGTTCGGGGTCTGTTTTATGCTCTTCGGTCCCTTCTCTTCTTCTCTGGGGCCCTGCCT
CTTCCTACCCATAAAGCACCAAACCAGGGCCGCTGCCATGACAGAGGGGCCAGGCTGGC
CTTCCTTTCACATCCCGGCCTNTTCCAAGGCTGGTCTGCCTNACTTCTTCTGGAATGTG
GGCCCCCTCTCCCTTGCTGACCCCTCTCCTNTTGCTTNTNTTGCTTTTCCANGCCCT

Sequence 67

CGCGTCCGGCAACCTAAAAATAGGATGCACCAATAGCATGTGGTTCCAAGTAAGTTGTGA
TTTTTATTTTGAAGACAGTGTTCCACTGGAAGGGAGGGAAGGGCTTACATTACAGACAGT
AAAGCAGGGCTGTGTAAGGAGCTACATTTACTTAAACAGTCTCCTTCCAGCTAGGTTTGT
TTTATTTATTTGCAAGTCAGCTAAGAATTAACCTTTTAAACCATCTAAACAGGCAAGCA
ATATAAAGATTTCTACTAGTGCAAGGTAAGTGGTTTGAATATACAAGTGCCCTTTCCTGC
CACCCAGTCTCACTACCGTTTTAGTCCCTGCAGCTGGGTAAAGCCACTATTGTGTGGAAC
TCTCCCATGTGCCCTGTCTACCTCTGGACACACCAGCTCCTTCTTCCACCTATTCTAT
TCCTCAGTTAAGCCAAGTGATCAGAAGTAGTATTAAATGGGTAGATAATTTTA

Sequence 68

GCCACGCGTCCGGCGCCGGGTGCGCCAACCTACGCAAAGACCAAGCGGGCTCCGCGCGGAC
CGGCCGCGGGCTAGGGACCCGGCTTTGGCCTTCAGGCTCCCTAGCAGCGGGGAAAAGGA
ATTGCTGCCCGGAGTTTCTGCGGAGGTGGAGGGAGATCAGGAAACGGCTTCTTCTCACT
TCGCGCCTGGTGAGTGTGCGGGGAGATTGGCAAACGCCTAGGAAAGGACTGGGGAAAAATA
GCCCTGGGAAAGTGGAGAAGGTGATCAGGAGGCCGGTCCACTACGGCAGTTTATCTGTCT
GATCAGAGCCAGACGCGACGCGTCCACTTCGAGTTCTTTCCAGGTGTGGGGACCGCAGG
ACAGACGGCCGATCCCGCCGCTCCGTACCAGCACTCCAGGGAGAGTCAGCCTCGCTCC
CCAACGTCGAGGGCGCTCTGGCCACGAAAAGTTCCTGTCACTGTGATTCTCAATTCCTGC
NTGGGTTTTTTT

Sequence 69

ACCCANACCTGGGAGGAATTAATGGAATGCTTGNCCCTGGGCAGCCTTAGAAACAGACCC
NAGCTTATCTAANGCTGCTCCGAGGCAGTGACCCAACTANGGCTCAGGAAGTCAAGAANA
TTGACCAAGCTTATAGTGATCACCTCTTGACCTTTGTGTACAGTCNTTTTGCTTTTTAA
AACCTTTTTGTGAACCGNTTATGGCCTTTGATTCTGACAGGCATCNTAGTTGTGAAGGGG
AACANGGGCAGGATATAATGTTTCGTTTACCAAATACAANAAAATCNGANGTACCCAGNT
AGATCACAANATTTTTTGGGAGAAGGNCNTNTGGGTCTCTTCCAGGAGNTCACTTCANNN
TTGGNAACCTTGACAGGGGCTTGGGGAATTTANTATTCCCTTGGGCGCAGGGNCNCAAAN
GGGTGGCANTTTCCCTCCTTGGAGNTTTTTTTTTCAAGAANTCCTTGCNTNGGGGAAAGA
TGTTTACNANNATCCCGAATTTCCAACCCCTTCCCTATTTTTTTGGTTTAAGG

Sequence 70

CGCGTCCGGCACATTAATAAAAAAATACTTATTTTTTATTATGGAAAGGTCTTGGAACATT
CTGATAGTGAGCTTCCGGCATTCAATTTGCTGTATCTGGCTTAGGAGATGCTAGGGTGGCA
AGAAGAGGCACAGGCTTAGATGCGCTGGGTGGAGAGTTGGCTTTAGTAATGATGGTTGAC
TCTAACGACTTGATTATCAGCTGTGCCTTTTTTCTTCTGCCTTCTGAGGTGTGTTGCCT
GCATCCTAATTCACGTAAGTACTGAGTAGCAAGCTAAGCAGGTTGTAGCTGGAGATTGTAAGAA
ATCCTGAATGGAAACCAAAGAAAGACTGTCACATCACATGATGTGCCCTTTTCAATCCCA

TABLE 1
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TGTCCTTCCCAGTGGCATCCCAGTGCTGTCTCTGCCCCCTGCTGCTTCTGTAAAGATTT
TCTGACACAAGTAAGTGCCTCATAGACCTTCTTTTTATGAAATCCTGAGTTTTGGTTTG
GGTACGTCCTTTTTAGAT

Sequence 71

GCGCGGCTGTGCGAGGGGCGGGGGTGGGGGCTGCAGGCGGGGCAGGGCTGGGTGGGGGCG
CGCGACGCACCTGCCTGCTTCTGCACGGGTGGNCCCCAAGCACTGCGGGGCCCCAGCCC
AAAGCGGACCTGA

Sequence 72

CGCCCCGCGTCCGGGCGGCTGGTGGGCGACCGGGCGCATCCTCATTGCATGTGCGGCGGC
CCTACCTCGGCCCTGGCCTGACCCCGGCGGCCCTGCCCGCCCCTCCCTCCAGCATCATGG
CCAGCCCAAGAACCAGGAAGGTTCTTAAAGAAGTCAGGGTGCAGGATGAGAACAACGTTT
GTTTTGAGTGTGGCGCGTTCAATCCTCAGTGGGTGAGTGTGACCTACGGCATCTGGATCT
GCCTGGAGTGCTCGGGGAGACACCGCGGGCTTGGGGTTCACCTCAGCTTTGTGCGCTCTG
TTACTATGGACAAGTGAAGGACATTGAGCTTGAGAAGATGAAAGCTGGTGGGAATGCTA
AGTTCGAGAGTTCCTGGAGTCTCAGGAGGATTACCGATCCTTGCTGGTCCTTGCAGGG
AGAAGTA

Sequence 73

GCCCCGNTCCGGAAATGTCCGATTTTTTTTTAATTAATGAAATTGTTAATGAGGAAAA
ATTTTAATATAGGTCTTATCTACCACACATCCCCATAGATTTAAGGATTTTAATAGAAA
GTCATGATGTATGTATTTAAGCCACGTTAAAAGAAAAAATAACTATGGACCGGTATTC
AGTGAATACAGTTTCATGGTTTTTAATTCCTTCAAAGCACATTAAAAATGGTGTGCTGAT
AAACCCCAAGTAAATTAACCCCTTTTCCGTATAAATCCATTTTTGTGTTTGAAGAGGGGA
AATTATATTTATTGNTGTTTACTGAATCCTGGTGTGAAAGCATATCAGATATGTATGAAC
TGCTACTGCTGTACTTCCGATTTACGGACATCATTTTATTGCTATTTGTAGACCGTGATA
ACATGAACATGAGTCCTATTTATGTGGGCCTTCAGTGGATGGGCAGTGCCACTCANGTCT
CTGGGGGTTTCTCTCTTAATTTTAAAGTAA

Sequence 74

AGTCGCCNCGCGTCCGTGTGTTTCTCCTCGGTCCCCAACTCTACCTTCCCCAACCCACAGT
TCCTGTCCCAGATGTCCTGATGCCACCATGGCAGGGGAGCCCAATAGACTCCCAGGAA
CTTCAAGGAGTGTCCAGCAGTTTCTGGCTATGTGTGACAGGGGTGAAACTTCCCAAGGGG
CCAAGTACACAGGAAGGACTTTGAACTACCAGAGCCTCCCCATCGCTCCAGAACAGACA
ACTCCTGGGCACCCTGGTCAGAGACCAACCAGCATATTGGGACCAGATTCTGACTACTC
CAGGGTGCATCCTCAACTAACCTACACTGCCACACTACCAGAAAGAAGCAAGGGCCTTC
AGGTTCTCACACTCAGTCCTGGAGTGGATCTTTTTTATTACCCCTNCCACCCTNCCATT
GNTCATCCTGTGTACCCACCATCTAAGCAGTCTTCATGTACCCCTGAGGTCAAGCTTGGA
A

Sequence 75

CCCGCGTCCGGGCTGGCATGGCTCTATATAAGATTGTTGCANAAANTCCCTACTACTTTT
GGTCTGTGATGAGCTTAATTATGCAATCTATATNGGCACAGGATGAAAACCTCTCAAAA
CAATGTTTCTGCCCTTCTGAGAGAATGGTCGAAAAAATGGTGAAAGAGGACAAGATAG
AAGCTGAGGCTGAAGTTGAACTTTATTATATGATCCTGGAACGTTTGGGAAAGTACCAGG
AGGCCTTGGATGTCATCAGAGGGAAATTAGGAGAGAAGTTGACAAGTGAGATTCACAGTC
GGGAAAATAAATGCATGGCTATNTACAANAAGCTGAGCAGGTGGCCAGAGTGCAATGCC
TTNCCGGCGCCTCTTACT

Sequence 76

GNTGGAGGGAGCTTTGCTACTCTGCTCTTGGCATGACTCCAGGATTTTTTCTGGAATCC
AACCTCTGTCTCTTAGGAGAAAGGAACCTGTCTTGGTTCAGATGGCTGGGCATGAGGAG
GAAAATTTCCATTAGTGTAAGAAAGTGCTGGACAGAATCCGGTTTGGAAAATTACAAATC
CAGTTGGTCAAAATAGGCCATTTCTATGTGTGACCTATTCGTGGTATGCCAACTGGACT
GCTTCCTAAACAGGACGAGGAAAGTGAGGAATTTTTATATGAAAGCCTTAGCCTGTCT
GGCACCCATGAAAAAACTATTTATGCACTCCTACTTTCACCCGTCTTTTGCATTCTCT

TABLE 1
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ATTTGTAGCACAAACAGAGTTGAATGCCACAAAACACCCCGTTTATAGTGAGCTGTTTTCA
GTGACCAATATCAGAAGGAGGCTTGCTTCTGGACTAGCCTACTAATTGCCAGCAGCCACC
ATTTTTCATG

Sequence 77

GGAGAGTGCCTTGCCGGACCCTCAGGACGGAGCTGCTGGGCTGCTACAGTGACCAGGACT
TTCTGGCCAAGCTGCACTGTGTGCGGCAGGCCCTTCGAGGGGCTTCTGGAAGACAAGAGTA
ACCAGCTTTTCTTCGGGAAAGTGGGCCGACAGATGGTGACAGGCCTGATGACCAAGGCTG
AGAAGAGCCCCAAAGGCTTCCTGGAGAGCTACGAGGAGATGCTGAGCTATGCCCTGCGGC
CCGAGACCTGGGCCACAACACGGCTGGAGCTGGAGGGCCGAGGGGTGGTATGCATGAGCT
TCTTCGACATCGTGCTGGACTTCATCCTCATGGACGCCCTTCGAGGACCTGGAGAACCCTC
CGGCCTCGGTGCTTGCCGTCTGCGGAACCGCTGGCTGTCANACAGCTTCAAGGAGACGG
CCTTGGCCACTGCTTGCTGGTCGGTCCTGAAAG

Sequence 78

CACGCGTCCGGAGAACGTGATTTCTCAGCCGAATGAGTTTGAACATACCCACAGGAAGA
TGACTTGGGGTTCAAGGAAGAAGATTTGGCTCCAGATCATGAAGTAGGAAATGCCTCTCT
CAAACCTGAAGGCATCCAGAACTGGGATGACTTATGGGTCCAGAGAGAGGGTCTAGGAAA
GCCTCAGCCTCGGGACAGAGGCCCGGCTCCTGGGTGAACCACGCTGGGGCCAGGCTAG
TAGTGATCGGGCCGCTGTGTGTGGTGAGTGTGGCAAAAGCTTCAGGCAGATGTCAGATCT
GGTGAACACCAGCGGACCCACACAGGGGAGAAACCCTACAAGTGTGGGGTCTGTGGCAA
GGGCTTTGGGGATAGCTCTGC

Sequence 79

CGCGTCCGCAAGAAGATAACCCCAAACCTCTTTTCTCAGAGAGTTTGTAGCCTAGTTTGGG
ATAGATAAGATCCACATATTTAGTCATATAAGACTACAGGAGAGTAGAATAGATGCACCA
GATGGTGTGCAATGAAAGTGGTACTTTGTAGACTATAAGTGCTGTAAATTCTAAAGGACA
GGTACTTTTGCCTGGAGTGGTCAAGAAAGATTTTATTTAAATAAGGATTTGACGGGCA
GACTTAGCAGTCAAAAAGGGAGAAAGCGGGTAAACAAATGTAAGCCATCATAAGAGTGCA
TGTGGTTTGGAAAGCATCAGGGAAAAGACTAGCCAACTGAAGTAAAAGGTTCTGTGCAAT
TGGGCAATCAATAGCATTAAAGTTGGAAACAGCTTGGGGACAGACACATAAGAGGGCCAGA
GTGTGAATAATTTTATCTAATACTTTATAGCACTTGACATTTACAGAGCACTTTTCTC

Sequence 80

TNCTCTCTGCCCCCCCACATTCGTCCTCTTGATTCTCTGCTTCTCTAGCTCAGCCGCTGA
CCTTCGTGCCTAGCCGCCACTAGTCCTTGACCAGCGTTCTGGCAACTCTTGCCTCCAAGT
TCTTCAGCTCCAGGCTGAGCCGATGGGGATTGAGTTTTCTGACATCACAGCTNAGTTCT
TGATTTCTGCAGCAAAACCTTCAAGGCTTCCATCACTCGGCTCTAGAGTCCATCATGCT
CCTCTCCTATGACCTGCTAGGGCTGATCAAACGTTCTGTCTCCTGCOGTGCCCTGCCCTG
CCCTGCCCTGAGCTTCGCTTAGCCTGTTGCAGGCTTTGTGTTTTCTTCTTGCTGTTG
GACCACGCAGCTCCTTCTACCCATAAAACCCCTTCTCTAGGTGCGTGGAATCTTGGTC
ATCCTTCCGTGTCTAGNTAACTGGNCACCTCCTCCACGAAAGCCTTCTAAAACTCCTT
CTCAGGGGAACTGGTTTTCTTTCT

Sequence 81

CACGCGTCCGCAAAATAGCCCCACATCCNGGCAAAAGGGGCCTTTCCCTTGGCCCAGAAG
AAAAAGGAACAAGTGGAGTGCAGAAGAAAATCTGTACTGAGAGACTTGGGCCTAGCTTGT
CTTCCAGTGAGCCAACCAAGGCTGGTGCTGTCCCATCCAGTCCCTCGACGCCAGCACCAC
CCAGCGCCAACTTGCCGAGGACTCAGCTCTGCAGGGTGTGCCCTCTCTGGTGGCAGGTG
GAAGTCCACAGACTCTTCAGCCGGTATCCAGCAGTCACGTGGCTAAAGCTCCAGTCTGA
CCTTCGCTTCCCCCGCCAGTCCTGTCTGCGCATCAGACAGCACTCTCCATGGGTTAGAGA
GCAACTCTCCCTTTACCACTGTCCGCTAATTATAGCTCACCTTTATGGGCTGCAGAGC
ACCTCTGCCGCAGCCAGATATCTTTTCAGAGCAGCGGCAGAGCAAACATAGGCGCTTTC
AGAATACCCTAGTAGTCTACATAAAATCTGGGTTGCTGGAGATCACTTTTGA AACCAA

G

Sequence 82

TABLE 1
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ACGCGTCCGCACCCCTGTGTCCAATGACATGTGCACCCAGGTGCGCAAGCGGCCTGTGGA
CACCAGGCCTGTAACCAGCAGCTGTGTGTGGAGTGGGCCTTCTCCAGCTGGGGCCAGTG
CAATGGGCCTTGCATCGGGCCTCACCTAGCTGTGCAACACAGACAAGTCTTCTGCCAGAC
ACGGGATGGCATCACCTTACCATCAGAGCAGTGCAGTGCTCTCCGAGGCCTGTGAGCAC
CCAGAACTGCTGGTCAGAGGCCTGCAGTGTAAGTGGAGAGTCAAGCCTGTGGACCCTGTG
CACAGCTACCTGTGGCAACTACGGCTTCCAGTCCCGGCGTGTGGAGTGTGTGCATGCCCG
CACCAACAAGGCAGTGCCTGAGCACCTGTGCTCCTGGGGGCCCCGGCCT

Sequence 83

CCCCGCGTCCGCTCTTACGCATTACTCTATGTCTACTGTTATGGGTGTGTAATTTTATAC
CATAGATGTTTACTCTTTAAACAGACACTTCTAGTCTGTTTTATTTTATGTGTCTGGGAG
CGGATAAAGTGTGAGGTTTACGGGAGAAAGAGAGGTCTGTCTCAATGCCTTGGCACGGCAT
GAAGACAATCTCCCTCCTTGTCCCTTTCCCTGCTAGCTCCTGATGACTGACAGATTCA
CAGCAGAACAGAAAGGACTGGGAAGGGATGGAGGTGGGACATCTGGCACTGACCTTCAGG
GGCTGACCCTGTGGGGGAACATCTGCCCTGAAGAGTTGGAGCCTTCATGTGATGACACAG
AGCTGAAGTGTGATATTCGGGAGGGGATAGAGAGTGCTTGGAGGTTTTCTGATTTTGAAG
AATCCCAAGTCAGTC

Sequence 84

GTCCGGCCGCTTCCGGTCTCCCTCCCGGGCCGGCGCTGGCCTGACTGCGGCCCCGGTCCG
TAGCACTCCGCCCTCCGCTTCTCCCGCCCTGTAGCCGCGAAGACTGCTTCAGCCTTTCC
TGTGCTGCCCTGCCGCGCGATGGAGACGAGCTCGAGCTGCGAGAGTCTTGGCTCCAGC
CGGCGGCGGCTCGGCCGCCAGCGTGGACTCCTTGTCCAGTTAATGTGTTAAGAGCCATT
GACATTTGAAGATCATCAGAAGTGAAGATAAAACATCTCAAAAATTATAATTGCCTCCAC
TTCTCATTGAGAGAAATCAGTGCATACAAAATCAGCTTCTGTTGTATCATCAGATTCCAT
TTCAACTTCTGCCGACAACTTTTCTCCTGATTTGAGGCCCATGCAGTCCAGTTCGGGAGC
TAAGT

Sequence 85

CCGCGTCCGCGTGAGGTGTGGGTGTTCTGTTTCTCAGGTAAAACATGGCTAAAAGCTTACG
GAGTAAGGTGAAAAGAAAGATGCGTGCTGAAAAGAGAAAAAAGAAATGCCCCAAAGGAGG
CCAGCAGGCTTAAAAGTATTCTCAAACCTAGACGGTGATGTTTAAATGAAAGATGTTCAAG
AGATAGCAACTGTGGTGGTACCCAAACCCAAACATTGCCAAGAGAAAATGCAATGTGAGG
TAAAGATGAAAAGATGACATGAAAATGGAGACTGATATTAAGAGAACAAAAAGACTCT
TNTAGACCAGCATGGACNGTCCCAATTTGGNTGAACCCAAAGGCAAAANAAAAANGNTTG
ANGGCAAAACCGANNGAAAAAANGGGGAAACCAACCNAAANCCCTTAAAANGGGCCA
ANGGGGTTTGGCCNCTGNNAATNNTTTNAACCCNNTTTGAAAACCCCCCTGGNNGANACC
NCCCGTAAAAATNTTCCCCCNNTTTTTTTTTT

Sequence 86

CCACCGCGTCCGAGGAGGGATCACCAAGCCGTGGGCCATGAAAGTCGGGGGGGGGACC
GCAAGCTTGAAAGCTTCATCATTGACCTTTNCAAGAAATTACCGGGGCCAAGGCCGCTT
GTTTCNAAAACCCCATGGAACNAAAACGANGGGGAGGCANGGGAGAACCACCCCTTG
GACTTTTTTTNATTTCTTCTTGGACCTACCGAAGGAGGGCACAAATTGCCGGGAAGATT
GCTTGCCTTTCCACCTTGGGACAAGGGGATCCTGGGACTTTTCCGGCCCGGGGTTCCCN
TCCCGTTGGCCCGGCAAGGGATTGGGTCAAAACAATTGACCCAAGGGAAGAATCCCCGGG
GACGGTCACAACCGGGGNACCAAAGGNAAAGCTTTTTTGGGANGGGAACCTTTTTTTTA
ATT

Sequence 87

CCGGGTCCCTCCCTGCGGAGCCGCTGGTCCGGCTGGCGGAGATGTGACCGCGGGCCCGG
CGGCCTGCCTCAGGCGTCGCGTCAGCTCCCGTGTCCGTGCCCTTAACCCACACCGATGGC
GGGATCCGGCTGCGCCTGGGGCGCGGAGCCGCGCGTTTTCTGGAGGCCTTCGGGCGGCT
GTGGCAGGTACAGAACCCGCTGGGTAGCGGCTCCTCCNCTTCGGGGTATTCGGGTTTCG
CTTGTTGGGGAACCTTGGTTGGCCCCCGGGGCCCTTAAANCAGTTNTTGCCGCCAGAAA
CCACCGGGGTTGCGGCCTTTGCCGCCNAGTATGNTTTCGAAAAAAAAGGGCCGGGCTTG

TABLE 1
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NACAAGTTGCANGGGTCACAAAAACATCGTGAATTTTGATNGGAGTGGTTACAATCCAC

Sequence 88

CGTCCGTTTAATTATAACCTAGATTGTCTGGGCAACGGCAGGAACGGAGTGCCACTGTGG
AGCAGATAACTGCAGTGGTTTTCTAGGAGTGCGGCCAAAGTCGGCATGTGCGTCAACAAA
TGAAGAGAAGGCCAAAAATGCTAAGTTAAACAGAAGAGACGAAAGATCAAAACAGAACC
AAAGCAGATGCATGAAGATTACTGTTTTCAATGTGGAGATGGTGGAGAGCTGGTCATGTG
TGACAAAAAAGACTGTCCCAAAGCATACCACCTCCTATGCCTTAACCTGACTCAGCCACC
ATATGGAAAGTGGGAGTGTCCGTGGCATCAGTGCGATGAGTGCAGCAGTGCAGCTGTTTC
CTTCTGTGAATTCGTCCACATTCATTTTGTAAGATCATGAAAAGGGGGCCCTGGTTCC
CTCTGCACTGGAAGGCCCGCCTCTGCTGCTCGGAACATGACCCCATGGCTCCTGTGTAC
CAGAATACTGGAGCAAGATAAAATGTAA

Sequence 89

NGTCGCCCCGCGTCCGTAAAAATGTTAAGTCCCCTAAAAGTGAATAAATTTTAAATACCTA
CTTTTAAAAATACTGTCTTCTAAATTGACATAATTGCTTTTCTTACCAAAAGAAGGAGAG
GTTCCCTAATTCTTTTGGGCCATAGATCCGCTTTTAGGATCTGATTAAGATGTGGAC
TTTACCAGCAGGAAGATACCCATGGGCACACCATTCAAATGTATCAGATTTCAACGGTT
TTACAACTCCCCCGGGATTAAGTCAAATGGGTGGATATTACAGCTGTTTTCATCAGATA
TGGTTATTTGTTGACAACCATCAGGACAACAATGTTTATAGATGGAAGGATAACTTCCTG
GTTTTTTCCACATTGAATGTGGCTAGTTACATATCTCAATTTAAATAAATTGTGGAAA
GCCAAAAAAGTATGGTCAAGCTAACCTTGGGGTGGCTTTACCTGATGCCTACAAGCACA
GAAAAATAGTTTTTAA

Sequence 90

CCGCGTCCGATTATGCCAAGAGAAGGTATTACTTTAAGATGTGAAAAATGTAAATGGAA
AATTACATTACTAAGAAAAACAAAAAACACAACTGNNAATAGAAANTGAAAAACAT
TGCCACAAATGCAACGCACATACAAGTCATAAGAAAAAAAATAATTTAAATGAATAGA
AATATTTAAGACTTAAGCTTTGAAGAACACAATTTAGATGCAATAATTTCATTTTCTCA
ACAAACAAGATTATGAGTTTCTAATCTTCAAACAAGTGATGGAATAGTGTTTCTTAAAA
AGAAGAAATCCATTTATTTGTTGATTCAAGATATATAGAAGCTGCTCAAAAAGATGCAAA
AATGTACAAGTTCATTTATTGACAGCAGCTAATTTAAAGATTTTGTAGTAGTAAAAA
TTACTTAAAAATTGGTGTTGAAAAAGAATACTTAACCTTAGCTGATTTTAAAAAACTTCA
AGCTTGATTTCCAAGTGCAGAATTTGTCAAATCAATGCGCAAAAATTAAGACTTATTA

Sequence 91

CCGTTGTCCCATATATCTTGTCCAGCAGCCATATATCTTGNGGTCTACACGCCTAAAGC
ATGATTTCCCTTGAAGTCTTGGGGTTGNTTAAAGGAGAGTCCCTTCAATATAAACCTCT
GAAATATTAGTGAGAATGGCTCACTAATGTGAACAATGTTTAAATTATTTATTTATATAT
AGAATTACTGAATATTAGTACTGGGAAAATTTATAGAAATCATCTAGTCTTACCCTTCAT
CTTACATATAAGAAAAATGGTCTTTTCTTCTAATCACATTTACAAAATATGATATAAAC
TTGACCATGAATGTATGAGCCTAATTAGAGAAACAGAAAATCAGCATGTCAGTTTTCTT
CATTCAAATAACATAGTCTTTCTAAGCAGTCATTCTGGGAG

Sequence 92

ACCACGCGTCCGCAAGGCCCGCCCTTACGTA CTGGAGCTCGGATCCAGTGTGGACCT
GGACTCGAATCCCGTTGCCGACTCGCGCTCTCGGCTTCTGCTCCGGGGCTTCTTCCCTGC
CCGCCCGGGGCCCTGACCGTGGCTTCTTCCCGGCCTGATCTGCGCAGCCCGGCGGGCGC
CCAGAAGGAGCAGGCGGCGCGGGGGCGCGCTGGGCGGGGGAGGCGTGGCCGGAGCTGCGG
CGGCAAGCGGGCTGGGACTGCTCGGCCGCCTCCTGCCCGGCGAGCAGCTCAGACCATGTC
GCCTGAAGAATGGACGTATCTAGTGGTTCTTCTTATCTCCATCCCCATCGGCTTCTCTT
TAAGAAAGCCGGTCTGGGCTGAAGAGATGGGGAGCAGCCCGCTGTGGGCCTGGGGCTCA
CCCTGTTACCTGTGGCCCCCACACTTTGCATTCTCTGGTCACCATCCTCGGGACCTGGG

Sequence 93

NCGCGTCCGCCAAGATGGCGTCCNTCATGGAAGGGCCGCTGAGCAAATGGACTAACGTGA

TABLE 1
18/467

TGAAGGGCTGGCAGTACCGTTGGTTCGTGCTGGACTACAATGCAGGACTGCTCTCCTACT
ACACGTCCAAGGACAAAATGATGAGAGGCTCTCGCAGAGGATGTGTTAGACTCAGAGGAG
CTGTGATTGGTATAGACGATGAGGACGACAGCACCTTCACAATAACTGTTGATCAGAAAA
CCTTCCATTTCCAGGCCCGTGATGCTGNTGAGCGAGAGAAGNGGA

Sequence 94

ACGCGTCCGCGGACGCGTGGGTGCGGGCCGCCNCCCTGGACGAAAGAAGAGGGGCCCTC
CAGGCCAGTCTGGGCACCCTGGGATAGCGGCTGCAGCCAGGCATGGCCGACTCTGCACAG
GCCCAGAAGCTGGTGACCTGGTACAGGGGGCTGTGGCTTCCTGGGAGAGCACGTGGTG
CGAATGCTGCTGCAGCGGGAGCCCCGGCTCGGGGAGCTGCGGGTCTTTGACCAACACCTG
GGTCCCTGGCTGGAGGAGCTGAAGACAGGGCCTGTGAGGGTGAAGTCCATCCAGGGGGAC
GTGACCCAGGCCCATGAGGTGGCAGCAGCTGTGGCCGGAGCC

Sequence 95

CCCCGCGTCCGAGGTGACCTCCTTGGCCCAGATCATCTTAGAGCCAAGAAGCAGGACCAT
TCGTGGTTTTGAGGCCCTGATTGAAAGAGAGTGGCTGCAGGCTGGTCACCCATTCCAGCA
GCGCTGTGCACAGTCAGCCTACTGTAACACCAAGCAGAAGTGGGAGGCTCCTGTATTTCT
TCTCTTCTGGACTGCGTGTGGCAGATCCTTCGTGAGTTTCCCTGTTCTTTGAGTTTAA
TGAGAATTTCTCATCATGCTCTTTGAGCATGCTTATGCCTCACAGTTTGAACATTTCT
GGGCAACAATGAAAGTGAAGATGTAAGTTGAAGCTACAGCAGAAGACGATGTCTTTGTG
GTCCTGGGTAAATCAGCCCAGTGAGCTGAGTAAATTCACCAATCCCCTCTTTGAAGCCAA
CAACCTTGTCATCTGGCCTTCAGTTGCTCCGCAGAGTCTTCCACTGTGGGAAGGTATTTT
CCTACGTTGGAATAGATCCTCTAAGTATTTGGATGAAGCATATGAAGAAATGGTTAACAT
CATTGAATATAATAAGAATT

Sequence 96

CCGCGTCCGTTTTNCCTGTTGGTTAGGCTGGTCTTGAACCTCCTGACCTCACGATCTACCC
ACCTTGGCCTCCCAAAGTGCTGGGATTACAGGCCTGAGCCACTGCACCAGGCCACCCTG
TCTCTATTTTCTAAAATAATAAATCTGATTTTAATGTGGCTGGATATAAATCATATCACA
GTTGGATTTGGAAGTTTGGGTTTTATTCCTAACTTTGATGGGAAGCCATTTTAAGCAGAA
AGATGATTTTAAAAGACCACTATATTTCTGTGTGAAGAATGAACTGGGAGATTTCATAG
TATTATTAACAAAAATAGAATAGTTGGGGATCTGGTTTGGCTTGGGAAATGGAGGAAGTT
CAACTTTGGGCATGCTCCATTTGCATTGCCAAGACATTGCAGCAATTGGAAGTGCAGTCA
GAGAGCTTAGAGAGAAACACTTGGCAGATGGACATAGAGAAAGTAGTACTCAAAGCTTGTGG
ACATTGATTAAATAATCATACAGGAGTATGGGCTGACAAAAGATTNCAAAGAGAAAACCT

Sequence 97

GTCNCCACGCGTCCGGGACTCTCGGCCCTGGAGAAGGAGGTGGACTTTGACTCCGACCCC
ATGGAGGAGTGCTGCGGATCTTCAACGAGTCCACCAGCGTCAAGACGGAGGACAGAGGC
CGGCTGGCCCGGCAGCCCCCAAGGAAAAGAGTGAGGAGAAGGGGCTTTCGGGTCTGACC
ACTCTGTTCCCGGGCAGAAGAGGAGGATCTCCACCTTTCAAAGCAAGGCCAGGAGGTG
GAGCCCCCGAGGAGGGGTCCCGCGGTGCCCCCGGCCCGGCCCGACGGCGCAGGAGGTG
TGCTACCTGCGGGCCAGCAGGCGCAGAGGGCATCGGCGAGCTTGCTGCAGGCCCCCGCC
AGGCTGGCAGAGAAGTCGCCCTNCGTCCACATTTCCCGCCCCTGGCGAGAA

Sequence 98

CGCCNCGCGTCCGGCAAAGCAAAGGGGAAATTATTTGGTGGATGGTAGCTCAAAATTGGA
ACTCTTGTTCTAATTACATTGGCTTTACCCTCCTTAGATTTTTCATCAAAGGGCT
GTCCCATTTGCAATCTTACTAAAACATTTTGTAAAATAAACTCTTTTCTTTTATATTA
ATAATTAGGCTTTTAAATAAAGATGTTATTCCTTTAAATGGTGGGCTTACCATCATTGA
AGATGTCACTCAGGTGGCCTTGCTTGATCAAAACGCCTTTTTTAAAAACCAAGCTTTAAA
AACATGTTTATAATTTTCATGAAGTACATATATATTGTTCCCATAGTCTTCAGCTTTAAAA
CTATAAATATGCCCAAATTTTGTATTTGCCCTACTTTAAGTAGGTTTATTGNGTTTGT
TTTTCAAGTACTTGTTTTTCTCTGATAAGACTCAGGAATTCTGAAATGTGAAATGNCT
CAATT

Sequence 99

TABLE 1
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CNCGCGTCCGAAATCGTTGCTACCAANTATTCAAAACCCTTTGAGTTTACATACTAGTTA
CCTTAAAAATTANTNCCTGACNCTCNTGANTTTGGNGGAAAGCCCTTGNTCNCTCTC
TNATGNACTCTCATGGGTTTTTTTGTATGATTTGAATATNAATGTGCCTAAAGAATTTTT
GCTCTCTTAATCTATGNATACATACTTGAACAAATCATTCTTGCTTAACTGCTGATCTTT
TGTAAACTATTG

Sequence 100

GCCCCGCGTCCGGCTGGAAGCAACAGTTTGGCAGCCTGGGGTACACTCAGGTTATTGCTT
ACAACTATTATTATTTGATGTCTTTTTTAACTCAGGTCATCCACTTTTGAAGTGCATC
CATGGAAGAGCTCTTATTAAGAGCCTCAGACTTTCCGGGACCTATGATTCTTTGGCACAAC
CTTTTGGAAAATTCTTAAGCAGGGATGAAGCAAACTTGATTGGAGTTGGGGAAAAAGAAG
ACAGATTAGTATTTTTCATGCTGACAAAAAATAGCTGCTATGACTTTTCCCGCAACGTGG
ACAGGGGCCAAGTGAAGCTGAAGTGGTCTGTCGCCCAGTGTTCCTTGTCTGTCG
GCGATTTTGGCCCCGACCCTTCTTGGTGGGCTTAGTGGTGGCAATCTGTCTCTTCTACCA
GACTCTGACCCTCCGAGGGTGGAGGAAGCTCACAGCCGCTGCCCTGGGGCTGTCCCACA
CACATCCACTGAAA

Sequence 101

CCACGCGTCCGGGCGTCTCGGCTCTTCTGTATCTCCCTGGCCTGGTCTCGCTCTCGGCTTCT
GGGCCTCGCCCTTCTGTCTGTGAAATGGACTCTGGGTGAATCCAAATGGGATCGTCTCG
GGCTACGTCTGTCCCTCCGGGACTACAAGTCCCAAGGTGCTCGAGGCGACCTTGGCTCC
CCCTCCCCACCGGGACCCGCCCTCCCTCCAGCCCAAGTCACGTCTGCTAACTGTTCCCAG
CTCCTGCCCCGCCCCGTTCTCCGCTCCCCAAGCCGGAGCCCGAGCTGGAGGAAGCCCCCA
GGTGCCAGGATCTGCTCGGATCCGNGCCCGCTCCGGCCGGCACCATGGACAGTGAGGCAT
TCCAGAGCGCGCGGGACTTTNTGGACATGAACCTTCAGTCTGCTGGCCATGAAACACATGG
ATCTGAAGCAGATG

Sequence 102

CCACGCGTCCGGTCCGGGGTGAATCACGTCTGCTGCGGCTGCCGACGACCCACACCCGGC
CGGCCGCTCCGCAGACCCACCTTGGCCGCGCGCAGGGGGCGCGCAGAGCCCCGAGGGA
GCGAGTCCCCGCGCGTGGCAGCTCGGCGGCTTCTCCCTTCGGGAGGTCCGGCTCCCGGCT
CTCCGGACCCGCCCTGGCGTCTCGCTGCGGCGGGGCGGACGACAGCGGCGCCAGGAAT
GGCTTCGGCGGGCAGCGGCATGGAGGAGTGGCGGTGTCGCTGCTGACCTGGGGGCGGTGCTGAGCCC
GGCCTGGGTACAGCTGACCACCAGTACTACCTTGTCTGTTGTGGGGAGTCTGCGCGAAA
CCCGCCAGCTTGGACATCTGGCACTGTGAGTCCACGCTCANCAANCGATTGGCAGATTG
C

Sequence 103

NCGCGTCCGAGAAATTGCAATTTTTTAATTTTAATTTAAGAGGAATTCTGTCAGAGA
GAACTATTAAGAAAGGGGTATATCCAGTCTAAGGATTATTAGGCTCAAGTCCATGAATAG
GCTCTGGGAAGTTTGTAAACACTTGAAATTATTTGCAAAATGTGTGTGTGAATGTGCTT
TACCTTANAGAGTTCATGAATTTTATTAGATTGTTGAAAGAGTTTTAGTATTAACAAAGG
AAAAACAAACCACCACCATCACATAACAAAACCACAACAGTGATTTAATCTTTTACCTA
ACAATAAGTAAATTGAGGCTCTGATGGCTAAATTAATAGCCTGAGGCTACACAGTCAGTG
GCAGAGCCCAGGGTANAGAGAGAACCAGCACAAAGCCATTGTGGGAGCCGAGGGTAAAGAG
AGAGCTAGGTGTTGTACCTTAGTAAATAAATCAGAA

Sequence 104

GNGTCGCCCCGCGTCCGGAAGGTGGAGACCGCTTACCCTGATCNGGGATGTATCGGCTGC
GGGTGCGCAAGGCAGTCCAGGAGTGACCTGGGGCTGTGGAGAGCGACCCGTGGCCTTGTG
TTTCAGAGTTTACCACCTAGGATGACTTCAGTGACTAGATCAGAGATCATAGATGAAAAA
GGACCAAGTGATGTCTAAGACTCATGATCATCAATTGGAATCAAGTCTCAGTCCTGTGGAA
GTGTTTGCTAAAACATCTGCCTCCCTGGAGATGAATCAAGGCGTTTCAGAGGAAAGAATT
CACCTTGGCTCTAGCCCTAAAAAAGGGGGAAATTGTGATCTCAGCCACCAGGAAAGACTT
CAGTCCGAAGTCCCTTCATTTGTCTCCTCAAGAACATCTGCCAGTTATCAAGACAGGAG

TABLE 1
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GCAATCCTGGCGGCGAGCAAGTATGAAAGAAACGAACCGGCGGAAGTCGCTGCATCCCAT
TCA

Sequence 105

CGTCCGCGCAGCGCTTGAATCCCGTGGCCTAACCGTCCCTCGGAAGACCGGTCCCCTCG
GGAGGCTCTGCAGTCGCGCCTGGGGTCAGGGCCGGGGGCGAATGTGGCTCGCGTTCTAGG
CCTCCCTGGGTTGAAAAAGACTATGTTAGCAANGTGTACGCCATGCTTTTGCCAACTT
TCCAATTAAGGTTGACATTCTGCATAAGCATTTCTCTGTGAAAATGTCCTTGCCTCTT
ACAGAGGAGCAGAGGAAAAAGATTGAAGAGAATCGACAAAAGGCTCTGGCCCGCAGAGCT
GAGAAGTTATTGGCAGAACAGCATCAGAGGACTAGCTCGGGCACCTCCATTGCTGGCAAC
CCATTCCAGGCCAAGCAAGGCCCATCCCAAAATTTCCCAAGGGGAGTCTTGTAAGGCCAA
GTGAGCCATTGGTGTCAATTTCAAGCAACAGAATCTCAGTAGCTCATCTAATGCTGACCA
AAGACCTCATGATTCCACAGTTTTCANGCAANGGGAATATGAAA

Sequence 106

CCGGCCCTATCCCTATATTGTTTGCTTGTGGGATAACCTAAAAATTTTTATCCAGTTT
ACTACTAATTTGTTTACCTGATGTATCTTCTCTTCAATAATTTTATGTTACCTTCTGT
TTAGAATAATATTTGCCACAGATATTTAGGTTAATTCTGTGTTGAATGATTCCAATGC
CTTTCTCTACCCACTTTGAACACTTCATCCTGGAATGGTTGGCTGATGTATGTCTCTAAA
CAATTTTTTTTTAGGAGAAGGTATGTGGGTAATGTAATTCCTAAACCTTTGCTTTTCTG
AAAAATCTTTCAATTTGCCTTTATACATGACCAGATTTACTGGGTATATAGATTTGTTGAT
GAAAAAAGGTAAAAAGAGCAACTTTTGACATCCAGAGGTTTGTCTGGCACTCACAGCTAG
CCCCGTGTTATTCTCCCTATT

Sequence 107

GCGTCCGTCTNAACCCTAAAGCTAAAAAGTCATTGTGAACCTTTNGGTCTGATGCTAAAG
AAGGGAAAAACAGGTACAGGAAATCCCATGTGGATGCTTGCTTNCAGGATTTCCCTGCCATG
ATTCCAGAATCCACAGCTNCAACATGATTGCAAAAAGACTCCCTGCTCATTTTNCCTCA
GCATGCACAGCGCTGTCTGTCTCAGTTGCAACTCGACAGAGCCGCATTTACTCCAGAAC
CCAATCCACACACCTGCTCATCCTGCCCCGAGAGGAGTGCCTGAAGCCAATAGCAGGGAA
CTAGAGCAGACTTGGGTGGATCTTATTGGATATTAGGTATCTTGCCCTAGATAGGCAAG
CAGTGGCCTTACAGATGCTGACAGATGATCTGATTAGATGCACAGNTGCTGGGTGGCGTC
TGGGGCCAGTCTATTGGNCAGTTCTGGGAGNNGGAACTATTTGGGCTCTGCAAAGATG

Sequence 108

CGTCCGCTCCCTGGCCCTGCTCCGGGAGCTGTGCTTGTCTCCGCCAGCAGCCCTGTGGCT
GCAGGAGCGCCAGGCCAGCTTCGCCACTCGCTGCCCTGCAGAGCTTCCTGCTGAAACC
TGTCCAGCGCATTCTCAAGTACCATCTGCTGCTGCAGGAACTAGGGAAGCACTGGGCGGA
GGGCCCAGGCACTGGGGGTGCGGAGATGGTGGAGGAAGCTATTGTGTCCATGACAGCGGT
TGCTGGTACATCAACGACATGAAGCGCAAGCAGGAGCATGCAGCGCGCCTCCAGGAAGT
GCAGCGGCGGCTGGGTGGCTGGACCGGACCAGAGCTCAGTGCTTTTGGGGAAGTGGTGT
GGAGGGCCGCTTCCGAGGAGGCGGANGGGNNGGTTGGCCCCCGGCTACAAGGGGGT

Sequence 109

AGAATTGTGTATGCCTTGCCTATCACGGTACAGCACGAAGCCAGGCTCCTTTCTCCACCA
AAGAAGATGGAACCAGACTGGAATTCTGTCTCCAGAGAGAAACCCAGCTGTTTGGGTCAA
AGACAGATGCTTCAGACTTGGGTGGGAAGGTGAAAGATGGCTATTTAGAAAGCTGGTGGC
ACGTTTTACATAAGGGAATGTCAGATGGGAGATGCTAGTTGCCATTTTAAACAAGCAGGT
AAATCGGTAATTTTAAACTCTGTCCATGTTCTGTTAGAACTCAGGGACAAGGGATCCAT
GAAAAAG

Sequence 110

ACGCGTCCGCACGGAGAGAACTGGNCCTGGAGCGGGGGCGGGGGAGGGGGGCGTCGTCN
TGGGTACAATTGCGCANGGGCAAAGGTGAGAGGTCGCGCTGNCGCCGTTTTATTGAAG
ACATCGTCCAGTTCTGACCATGGACTCNCAGCCATCGGCCCTTAGTTTCCATTCCCTCTA
GNNGGCCTTCNGAGGGNTCTACTGACGTACCTCCTTCCCTTGGTACCGGACCGGGGAAGT
GTTTTCGGGCGCGGGAGGTTCCGCATGCCAGGCCTGGCCAGGGGA

TABLE 1
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Sequence 111

CGGGCCCTTAGTCCAAGCCTTGATCGGCGACTAAGTGACGGCAGTGAAGTGGCGCCATGCC
GAGCTGGACGGAAGNCACTTCTGAGAAGGGCGGAAGTGTCTCGGGCTCCTTAGAGGGAGG
ACACCATATTAGTGCCAGTGGGGAAGTCACCGGGTGAATTACTTCTTTGTGGAGTTTGT
GCTGTAGCGACAATGAAAAACGAAGAGTCAACTTTTATAAAACAAAATAAAAATTAAGTC
AAATCATGCCAACCTTTATTAGATCGGCTAGCAGGGTTAACTTAATTCAAAGCCCCTGA
TGAATCGGGCCTTCATTGCACCCCCAAAGGCTCGCCACCCTGATT

Sequence 112

CGCGTCCGGGCGCCGGTACGCCTGGTCCCCGCGTGGAGTCTTTACTCAAACAGCTCCCG
CCTCAGGCCGAGATGAGGAGCCCTTCANAATAGCTGCTGTCTCTGGGNGGACCCGGGCGT
CCTTGGCAGCCCAGCTGNTCTGGACAAAGCCCTGCCAGTCAGGCCTCCGCTGGCAGGAAC
CATGGCAGAGGCTGGGGATGCTGCGCTATCGGTGGCCGAGTGGCTGCGGGCATTGCACCT
GGAGCAGTACACGGGGCTCTTTGAGCAGCATGGCCTGGTGTGGGCCACTGAGTGCCAAGG
CCTCAGCGACACCCGCTGATGGACATGGGCATGCTACTCCCT

Sequence 113

TGTCGACCCCGCGTCCGCGGGANGTTTCATGGAAACGCAGGACACGACAGAATTGTGTNTG
CCTTGCCTATCACGGTACAGCACGAAGCCAGGCTCCTTTCTCCACCAAAGAAGATGGAAC
CAGACTGGAATTCTGNCTCCAGAGAGAAACCCAGCTGTTTGGGTCAAAGACAGATGCTTC
AGACTTGGGTGGGAAGGTGAAAGATGGNTATTTAGAAAGCTGGTGGCACGTTTTACATAN
GGGAATGTCAGATGGGAGATGCTNGTTGCCATTTTAAACAAAGCAGGTNAATCGGTNAATT
TTAAACTCTGTCCATGTTCTGTTAGAACTCATGGACAAGGATCCATGAAAAAGACCTGTG
ATGTTTCNTCTGGCGCTTTACTGGCCTGGGCACACCTACCAATCTTTTAGGATTTGACTG
GTTCCATTACATTTCT

Sequence 114

GTCGACCCCGCGTCCGTATCACTGTAATTTAAGGAAAGAAAACCTTCAGTTCTGCCTCTGG
ATACCAAGATGCCCATTGCTCAGTTCAGACAACCTGATATTAATAAAGCTATGCTCCTT
ACTTACTTCTTTTATTATAAAACAAATTCCTTTGCTTTGGCTGATACTAGCTGAGTCATTG
ATCATCATTGGTACCATGATATTGTAATCTATGCTGCTATTTGGCACAAGACTGAAGTTC
ACACTACAGTAGAGAATACTATAAGATAATTTGCAATAAATACTGATAATAATAATACCA
GATATTTTAACTAACTTTTCTACCTTTATTAATAGCAATCAGCACACTTGAATGTGTAA
ATTTACAGTAACTTTAGGCAGAACTTAAGCTCCAGGCCACATTTGTATAAGAACACCAA
GTATTCAGGCATAAAGTCTGTTGTAAGCCAAAAAA

Sequence 115

AGTTCAGTCTGCAGCAGTCCCTGCACCCACTTCCCAGTTGCTTTCATCTNTGGAAAAAGA
TGAGCCCCGTAAAAGTTTTGGCATCAAGGTCCAGAATCTTCCAGTAOGCTCTACAGATAC
AAGCCTTAAAGATGGCCTTTTCCATGAATTTAAGAAATTTGGAAAAGTAACTTCAGTGCA
GATACATGGAACCTTCAGAAGAGAGGTATGGTCTGGTATTCTTTGGCAGCAAGAGGACCA
AGAAAAAGCCTTGACTGCATCAAAGGAAAACTTTTCTTTGGCATGCAGATTGAAGTAAC
AGCATGGATAGGTCCAGAAACAGGAAAGTGAATTTGCGCCCTTGGATGAAAGGA
TAGATGAATTTACCCCAAAGCAACAAGAACTCTNTTTATTGGCAACCTTGAAAAACC

Sequence 116

CCCGCGTCCGCACCAGGCCCGAGTCTTCCCTTCATGGAGGGTGACGTGAGCAGCAAGGAT
AAGATGGGCAAAGGAGTGGATGGGACATATAAAAAAGCTCTTCAGGAAGCTGCAGCAAGG
TTTGAGGAATTAAGGCCCAAAAAGAGCTAAGACAGCTGCAGGAAGACCGAAAGAATGAC
AAGAAGCCACCACCTTATAAACATATAAAGGGTCTCCCTCTGTGACCCAGGCTAGAGTGC
ATTGCTGCAATTTTGGCTCACTGCAACCTCCGCTTCGTGGGCGCAAGTGATTCTCCTGCC
TCCTGCCTCAGTCTCCTAAGTAGCTGGGATTACAGACATGAGCCACCAACGCCTGGCTAA
TTTTGTGATTGGCAAAAAAGAGATTTTGTGACACATAAAGATGATATGAAATTCACCTT
CAATCAAGTATCCAGAAAATTTA

Sequence 117

CCACGCGTCCGGCCCTTGCCCCTGTCNCACANGAATGGACCCACGGCCCCACCCAGCGCC

TABLE 1
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GTCAGCGCCCGGCACTGCCACCCGGGTCCGGGCCGCTGCCTGCACGTGGGATCCGTCGGG
CAGCCGGGGACAGAAGAGACCCCGCCGTTGGGACGCAGGGCAGAGCCGGCCACCTAGTCC
CTTCCAGCCAGCAGAGGCGAGGGAAGGCGTCACTGCCCCGGCGGGGAGACGGGCAGGACG
CCCTGCCCCGCACCAGCAGCCTCCGCCGGGGCGCCCTCAGCTCCCTGCTTGGCTCTGTCT
CTCCACACCCGGCAGGGCCCCGGGCTGCCCCAGCCTGGGGGGGTCTGTTGGCAGCTGCTA
CTCAGTGCCAACCCCGTGGGGCACAGA

Sequence 118

NAGGGAGTCGACCACGCGTCCGGTGCGGAGCAAGCATCACACCATGGCGTATGAGTGTTT
CTCTGTGTAGACTCAACCTGCGCCTCGCCGTCCTCCATTGCGACACCCGATGCCCGGGG
TCGCTACGGACTTAAATCTCCGCACCGCACCTCCACCTCAGAAACGTTCTGGATCCG
AACACTGCCCCCTGACGACCTAGAGAGATCCCGGCTCCAGCCCACTGAGTGGCTTCAGC
CTCGCTGGTAGGTCTCTCTCCAAAGCTCTGGAAACAGACTCCTGGGAGTGANGGTAGNG
GGGGAGCNGCAGGCACCGCCCCCTTTCCCAAGTCNCCGCCCACTTCATCCCTCAGGCA
CCTNCCAACTCCTGGCCTTNTCTGCACGAGGCGCCTGCCCGGGCCCCGCTACAGGGGA
CCCAGCTCTTCTTGACGCCATTGGAAGNTGATCACCTGGGAGGTGA

Sequence 119

CACGCGTCCGGTTTTACTGCTCTTTGCCATGTGGTAAAAAGAGGCTGAGACATATTTAAG
AATTCGAAGAGGATATTATGTGTGAGAATTCAGACACTGATGAGAAGTTTTTAATTGTT
CTTTTTTATTTGATTTTGGAATTCAGGTGCACTCTATTCAAGTGCAAGGATATCAGAAGT
TTTTTTTTATTTAAAAAATTTTTTTTTTCGAGATGGAGTTTCACTCTGTTGCCAGGCTGG
AGTGCAATGGCAGCTTACTGCAACCTCCACCTCCTGGTTCAAGCGATTCTCCTGCCTCAG
CCTCCCCAAGTAGCTGGGGATTACAGGCACCGCGCCAACACACCTGGGCTTATTCTAATT
TAAGTAAGAAAATGGGAAGTCTTACCCATNTTTGGTCAAGGCTTGGGTCTTCGAACCTNC
TGACCTTAANGGTGATNCCACCCCANCTTTGGCCTCCCAAGCCGTGCTNGGGATTATAGG
GCATGAAGCCCACCCANGCCCGNCCAGGATTTTTATATTTAAGCCCTTCTTGCTCTTN
AAAAAAAAAAAAAGGT

Sequence 120

NGTCGCCNCGCGTCCGGGAACCTACCGGTACCGGCCGCGCGCTGGTAAGTCGCCGGTGTG
GCTGCACCTCACCAATCCCGTGCGCCGCGGCTGGGCCGTGCGAGAGTGCGTGTGCTTCTC
TCCTGCACGCGGTGCTTGGGCTCGGCCAGGCGGGGTCCGCCGCCAGGGTTTGAGGATGGG
GGAGTAGCTACAGGAAGCGACCCCGCATGGCAAGGTATATTTTTGTGGAATGAAAAGGA
AGATTAGAAATGAGCTGAAGACCATTACAGATTAATATTTTTGGGGACAGATTTGTGA
TGCTTGATTACCCCTTGAAGTAATGTAGACAGAAGTTCTCAAATTTGCATATTACATCAA
CTGGAACCAGCCAGTGAATCTTAAATGNTCACTTAAATCAGAACTTTGCCNTTAANAAG
AAAATTGGGGNGTCTGGGTTTA

Sequence 121

CCNCCCCGCGTCCGATCAATTCCTGGAATTTATGGTTATAACTTCGAAACAGAAGATGGA
CTAATTTTATTTTATCTAATTTTATTGTTGGAAATTTAGGAATTTACGGAAATACTAAT
TTAAATTATTTAAAAAGATCATTAGAATCAAGTAAACCAATTTTGATGGCTATGATTGAC
TCAACAAGAGCTAATTATCCAGGTAAAACAATAGATAAAATTTTGCTAAAAAGTTTTTA
GAAAAAACATTTTAAACAACAAATCCACTTCAAGAATAATTGTCGGAGCATACGATGAA
GAGATGCTTTCAATTCAAGAAATCCTTGATTTAGCTTACAAATCAAACGTAAAGGTTGCT
GTATATGGNAGAAATTATGACAATCTTTAGAAATGAATCAACGATTAGCACAAAAACAA
AATCTTGAAATACATTATCCAGAATTTTTTGATTTAGGCAAGCTAATAAAATCGATAAT
TTTGAATCTTAATTACATCAACACCTGGAGCGAATTTACCAAAGATTTTTTAGAAT

Sequence 122

CGCGTCCGCGAAACTGAGAACCAGTTCTCCGAAGCCGCGGGTCTCCGGCCGGCGGGCGG
GGCGGCGGCGCAGGTGAGCAGGGCAGGGGGCAGCCGAGGGAGCGGGGAGCGGGGGGCCG
GGGGGCCACGTACGAGGGGCTGCAGGCCAGCCGGGGCGGGACTCGCCAATCCTGCGTCC
CCAGCTCAGGACGCGGACGCTGATCCGAAGCCCCTGGCCCCGGCTGGGTGAGCACTGGGA
GAGCAGGCCCAGGTCCGCAGCCCGGTGTGGGGCCCTCCCAAATCCAGGGAAGGATCG

TABLE 1
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TGGAGCGGGGTGGGGACTGAAAGCCATTTCTTTCCCGTGAAGAATTTTTATCAGTGCAA
GTAACAAAATATT

Sequence 123

CGCGTCCGCTNAAAAAATAATACCAAAAAAAGTTTTGTAAAGACAACGCTCTCGCTGT
GTTGCCCCGCCACTGTGGCCTCCTTAGCTTCTTCCCTGGGGCCTGCTGGACCTTTCCATA
CTCCAGAACTAAAGGGGGTCCAGGACCCTGCTTNAACCCTAGGATCCCGCATCTTTTT
TTTTTTTTTTGGACGCAGGGTCTTGCTGTGTCCCTCAGGCTGGAGTGCAGTGATCACT
GCAGCCTCAAACCTGCTGGGCTNAAAGTGATTTCTTAGCCTCAGCCTTNTAAGTAGCTGGG
GACTACAGTCATACCAACATGCCAGCTAANTTCTTTTTTTAATTCTGTAGAGNA
TGTTTGAGACGGCTTGGGCTNTGTTGCC

Sequence 124

CCNCGCGTCCGTGCTGATAAACTCCTTTGACCTGACGATTGCTCTAAGTCCTAATTGCC
ATATTTATATTCCCATAGTAAGAGTGTTTGGAGATAGTGTTTGGCTTTTTTGCTGGTGT
TAAAAATGCATAATGAAAGATGGCACNAGAGAGGCATATTATATCCAATTCATGAAGTTG
TTTGTTTAACAGAAAGCTTATTTTAATCACTTAACATTGTTGATTTGTCTAATCACAGT
AGCGCTATTGATTAGGAGCCTGACCTTTANATGGTTGACTTGTGAGTGTATTCAATATGG
TGAAATAANGGTGTTTGATATATGGCTGCAGATTTAGAAGGTGTCATTAGCAAAGGTAT
ACGGAATAAAATANGGGTTATAGTATTCCTTACTCAAATCTGTATGTGCTAGAGCTGGC
TGGAGTCTGTTGGCATGCTCATTTGGTGTAAAGNCCGNTAAGGACTATGCT

Sequence 125

GCCCCGCGTCCGCACCTTTGATTGATAACTTAAATGGCATCAGTTTATCTTAGACATCA
GCTTGCTTTTTATCTCCTTTTTAGTGAGTGAAATAGAGCAACTAGCATGCCTGTGTTCC
CAGCTACTTGGGAGGCTAAGGTGGGAAGATCAATTGAACCTAGGAGGTTGAGGCTATAGT
GAGCTGTGATTGCACGACTGCCTCCAGCCTGGGCAATGGAGTGAGACTCCTGTCTCTAA
AACAGCAACAACAAAAATAAAGCAACCATAGTGCATAAGGGAAATTAATGTTCCCTATA
GAAATATGTGATGTCTGTGATAAGTGGTATGCAAATGCTAATTATTTATAAAATAAAA
GTTCAGAACTATTCTTATCATTGCCACTTGAACAATTAAGGGTTTGCTTTATTTCTAA
TGTTTAATAGGAACCCCTTGCTTCAAACAGCCTTTGTTGAAATCATGTAAAAATTTGTTA
ATAG

Sequence 126

CNCCACGCGTCCGGCGGCCAGCCGCGCCTCCCGTTCTCCCTCCGCAGCGGGCGGCGGT
GGCGGAGAAGGAACTCGACACGCACCGACCGCCCTCCCGCCCCAGCCGAAGCGGAAGCTG
TAGCCCGCTCTGGGCCGGGGCCATGGGCGCCCCGCGCCCGGGTCATGAGGACGGAGG
CGGAGGCAGCGGGGCCCGCTCGAGCCCGGGGACTTTGTGCAACTGCCTGTGCCCGTCA
TCCAGCAGCTCTACCACTGGGACTGTGGCCTGGCCTGCTCCAGGATGGTGCTGCGGTACC
TGGGCCAGCTGGACGACAGTGAGTTTGAGAGAGCCCTGCAGAAGCTGCAGCTGACCAGGA
GCATCTGGACCATCGACCTGGCCTACCTGATGCACCACTTTTGGCGTGAGGCACCGCTTC
TGTCACAGACCTGGGGTGTNGACAAGGGCTACAAGAACCAGTCCTTCTACAGGAAGCACT
TT

Sequence 127

CNCGCGTCCGCGGTGCGGTGGGCGGACGCGNNGGTTCTCCTGGACAAGTCTGGGAGTGT
GGCAAATAACTGGATTGAAATTTATAATTTCCGNNAGCANCGGGCGGAGAGATTCNGTG
AGCCCTGAAATGAGATTATCTTTCATTGTGTTTTCTTCTCAAGCAACTATTATTTGCCA
TAACTGGAGACAGAGGCAAATCAGTCAAGGCTTGGAGGATTTAAACGTGTTANTCCA
GTAGGAGAGACATATATCCATGAAGGACTAAAGCTAGCGAATGAACAAATTCAGAAAGCA
GGAGGCTTGAAAACCTCCAGTATCATAATTGCTCTGNCAGATTGGCAAGTTTGGACGGTC
T

Sequence 128

GGAGTCACCNCGCGTCCGCCCCGCGTCCGCCCCGCGTCCGGTTAATCTTAGGCCTGAGGT
TTGGGGCCGGGTGACAAGGAAGTTAAACTCGTCCCTCCCTGCCAGATTCTACCCCTTTTCG
GAGCTGAGCTCCAGCCAAACCTGTGGAGTTTTCTTGACCATTTTAGGACATGTTACTGC

TABLE 1
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TTCTGAGTTGGCTGCCCCAGCTGCTCAAAACAAGACCTTTCTCCTGGGTTCCTAGTAGTGA
AAAGGAGCAGCAGAGCAACTGAGGAGGAGGGCGGGTGGGAGGCATGGGACTGGGGCTTGG
GGAGGTCAGGCGAGACCGGGGTGAGAGCTCAGAGAAGCTCCTGTGACTTCCATGCTAAGA
TCTTGCCAGAGAACTCTGGTCAGTCCTCGGGTGTCTGGATGAAGTAAAGGAGTTAGGCAT
TTCTTCCTTTGATTCTCTGGCTTACCT

Sequence 129

CGTCCGGCCCCGCTCCGGGCGTGGGCGTGTTCTCGGCGGGCGTGCCTGGAGGAGGAGCTGG
GTCCTTGTGCGGCTGCAGAGTCAGATGGGGCGGGGATTTCTGGGCGACCGGGTCTCACCT
TCACGAGAAAGGCCCCACAGCACGTCCCCACTACCCGACGACTCACTCTTCGTGGCTTCT
CTCTCCTCCCAAGAGCAGGGGTGGGCGTGTCTCGCGTTCCCTGCGGGAGTCAGGAAGC
GTCCTTCTACCTACCACTCCTCCCTCTGGTGTCTGGGGACACTTCTGGGGGCCTTTC
AGGTGGTTGGCGCCGGTGCAGGGCCTGAGAGCCTGGG

Sequence 130

GCGTCCGGTGGCATCATGACTTCTGGGGCAGTAGACTGAGCAGCAACACCAGCCACAAGT
CCTACCGGCCTCTCACCGTCCTGACTTTCAGGATTAACACTACTACCTCTCGGGAGGCTTCC
ACCCCGTGGGCTTTCACGTGGTCAACATCCTCCTGCACAGTGGCATCTCTGTCTCATGG
TGGACGTCTTCTCGGTTCTGTTTGGCGGCCTGCAGTACACCAGTAAAGGCCGGAGGCTGC
ACCTCGCCCCCAGGGCGTCCCTGCTGGCCGCGCTGCTGTTTGCTGTCCATCCTGTGCACA
CCGAGTGTGTTGCTGGTGTGTCGGCCGTGCAGACCTNCTGTGTGCCCTGTTCTTCTTGT
TATCTTTCTTGGCTACTGNAAAGCATTAGAGAAAGTAACAAGGAGGGAGCGCATTCTT
CCACCTTCTTGGGTGCTGCTGAGTATCTTTCTGGGAGCAGTGGNCATGCTTGTGCAAAAG
AGCAAGGGATCACTTGTGCTGGGTTTAAATGCCGGAATTTGACAATCTTTGGGTGATAG
GC

Sequence 131

GTCCGCTGGGGGCCCTGGGGCTCTCTGCGTCGAGAGCGCTCGAAGACCCGGGATTCTGG
CCCGATCGCGGGCGGGGAGACCCAGCTCCACCCAGCTCCCGCCGGCTCGGGGAAGG
GGCGGCCCTTTAAGAGCGCGCGGCCCGCCCGCCCTCCGGGCAGGATCCGAATTCCA
GGGAGGCGGGCGGAGACGGCGGCGAGGAGGAGGCCGCGCGCGGACGCATAGAGCTGC
GGCTCGGGCGGCGCTCCTGCGGCGGCCCGGCCCGGCTCCGGCCCCCGCTGGGGCAATGC
TCCCCGGG

Sequence 132

TCGCCNCGCGTCCGGGCACACACATGCCAGGCTATTTTAAGAACTACTACAACATATGATA
AAGCTGTGAATATGTAGCCATGAACCAAACAAAGTCTCTGTCTTGTGGAACATTTGTT
CTGTCAGAGAAGACAGTGTGTTGGCTCACATTGTGGTCAGTGCTGTTGAGCAAAATAGGT
CAGAGTAAGGGGGATGGAGACTGGTGGGAGGAATGCTGCTTTATCCAGGATGGGCAGGGA
GGACTCGATGGTGTGAGCACTGAAGGATGTAAGATCTGCTGCTCTGGGGAGAGGAGCAGC
ATGGAAGGAGTAGAGTGCAGAGGCCATGAGGAAGGATCAGGCTTGAATCCTTTGAGCAAG
GGGGATGGGAAGAGTGACGGNAGAAAGAGGGACAGGCCACATGGCCTGGTGGCCTGTGCT
GAGGCCTTGGGCTTTTCTCAAGTGAGATGAGATGCCATTGGCCAGTTTGGGCAGTGATT
TNATCAGACTTGGTTCAGCAGGACCATNCTGCTTGGCAATGTGGAGAGCANGCTGAAG

Sequence 133

CGCCNCGCGTCCGAACAGGCCGGGCACCAAGGCGCAGGATTTCTATAATTGGCCTGATGA
ATCCTTTGATGAAATGGACAGTACACTAGCTGTTCAACAGTATATTCAACAGAACATAAG
AGCAGATTGCTCCAATATTGACAAAATCTTGAACCACCTGAAGGCCAAGATGAAGGTGT
GTGGAAGTATGAACATTTAAGGCAGTTCTGCCTTGAGCTAAATGGACTTGCTGTCAAAC
TCAGAGTGAATGCCATCCAGATACTTGCACCTCAAATGACAGCAACTGAACAATGGATTTT
TCTTTGTGAGCTCATAAACTCCAAAAGAGTGTCTGCTATAGACTATACTAGACACAC
ACTTGATGGTGTGTCATGCTTCTGAATAGCAATAAATATTTTCCAGCAGGGTTAGCAT
AAAGGAATCATCTGTAGCGAACTAGGATCAGTATGCCGTAGGATTTACAGAATATTTTTC
ACATGCTTATTTTCATCATCGGCAGATATTTGGATGAATATGAAAATGAAAC

Sequence 134

TABLE 1
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GCGTCCGCGAAAGCTGGAAGCCAGGTCTACCTGCCCCAGACGAATTGGTGTACCAGGTG
CCACAGAGCACACAAGAAGTATCAGGAGCAGGAAGGGATGGGAATGTGATGTTTTTAA
GAAATCCTTTGAAGATGATGCTGCTTTTTACAAAGCATCGTTTTAAAGCACATGGCCTT
TTTTTTTAATTATTAGTGGTAGTAATATATAGAATGTATTACATAACTGTCACTGAAGT
GGTTGGGGAAAATGTGGTGACTGAGGTACAGGAACTACTAATCTTGCCATCTTGCTTTA
AGGTGTTATGGTGGCACAGTTACTGCTCGCCTGTTAAATTTCAAATGTCCTGTTTGATAC
TACTGGAGAACACTATTTTTAATACAGAAAAAGCTCCCTATAATGCACTTCAGAGAAATT
AA

Sequence 135

TCGACCCACGCGTCCGGGAGTCCCCCTGCCCCCATCAAATGCTTCCTGCAATACTTTG
CACACCAGAGACTGGGCCTCCCCAGATCCAGGGGGACAGGGGTCCCTGGGGGAGTCCCCA
GGGCCAGCCCCTCCAGGCCAGCTGCACACACTTGACACTGATTTGCACAGTCTTGACAA
ATAGGGGGTAAGAGCCCAGTGGCTGGGGTGGGCAATGGGGGTAGCCTCTGGCCTAGGGAG
TCCCCTGGCACTGCCAATGGGCACAGTCCCAGACACACACCCCCTGGCCCTGGACCCCCA
GGCCCCTGCCCCACCAAGCGAAGGCTGCTTCCTGCTGGAGAAGCCCCAGATGTCAGCTCT
GAGGAAGAGGGGGCCAGCCCCTCGGAGGCGCGGGGATCCCTGGGCCACCCTACTGCTGCC
AACAGTTCTGATGCCAAAGCCACACCCTTCTGGAGCCACCTGCTGCCTGGGCCCCAAGAG
CCTGTTTTGGACCCAACAGACTGCGGTCCCATGGGGCGGAGGCTGAAAGGAGCCCGTCCG
CTGAAAGCTTGAGCCCCCTTCGAAAGCCTNCGGAAGGGGCCAGGCCTGCTGAGCCCCCCC
AGT

Sequence 136

CGACCCCGCGTCCGTGAGAATTCAGCTTTGGAGTCCCGGGTGAGGGGTTTTAGATAAAC
CATCAATATCACCCACATTCTGTGACTCTTTGCATCACTCGTGTTATTTATTTATTTAT
TATATTCTGCCTTGTTCCAGAAAAGTGTTTAAGGCAACAACGCTTGTTTTTGGTGTTTT
CTTTTGACATTTGAAAATTTAGTACATTGTTAAATGTACTTGTTAAACAGGTAATTTA
AAGAGAAGGAACAATTGTTTTAGTAAGTTTTCTTTTCTTTTCAATGAATTGATTCT
TCAAATTAAGGTTCTTGAGAGAAGGAGAGGAAGATACAGCAGACATAGGACTGAGCCAA
GGAAGAGTCTGCCTGAGAGAGACGCTTGCCCTGTGCTTTGCTGCCATCCGTGCGGCCTTG
GCCACA

Sequence 137

TCCGATTTTTAAATCTATTGGCCGTGTTGTCTACCTGAAGTTCTTCAACTGCCAAAAGC
ACAGCCCTTTTTCTCTGAGCTGGTGGTTCTGGCTAACACTGACAGGGGTGCTTGTTCT
GTGCAGTGGGCATCAAGTACATGGGTGTGTTACGTACGTGCTCGTGCTGGGTGTTGCAG
CTGTCCATGCCTGGCACCTGCTTGAGAGACCAGACTTTGTCCAATGTAGGTGCTGATGTCC
AGTGTGCTGATGAGGCCGGCCTGTATGGGGCAGATGCGGATGTCACAGGGGGTCTGTGTGT
TCTGTCACTTGCTCGCCCGAGCAGTGGCTTTGCTGGTCATCCCGGTGCTCCTGTACTTAC
TGTTCTTCTACGTCCACTTGATTCTAGTCTTCCGCTCTGGGCCCCACGACCAA

Sequence 138

CGACCNCGCGTCCGGAAGGACCCTCTGAGCTATTTTGCGGCATACGGGAGCAGCAGCTCA
GGCTCCTCGGACGAGGAGGATAACATCGAGCCGGAGGAGACGAGTCGCAGAACCCCGGAT
CCGGCGAAGTCGGCGGGCGGCTGTAGGAACAAGGCGGAGAAGCGGCTCCCGGGACCTGAC
GAGCTGTTTAGGAGCGTGACTCGOCCGGCCTTTCTCTACAATCCGCTCAACAAACAGATA
GACTGGGAGAGGCACGTCGTCAAGGCGCCTGAGGAGCCTCCAAAGGAATTCAAAATATGG
AAGTCAAATTATGTACCACCTCCTGAGACCTACACCACTGAGAAGAAGCCTCCGCCTCCA
GAGCTTTGACATGGCAATAAAATGGTCTAACATATATTGAGGACAATGGTGATGATGCTC
CACAGAATGCTAAAGAAAGCTAAGGCTTNTACCA

Sequence 139

CGACCACGCGTCCGGGCTGGCGAGCCCGGCTGAGGAGCCTCTTGGGTGCGACTTACCGCC
GCGTCCGCTCCCGTCCCTGGCCCCCTCAGCGGCATGGCGTGCGGGGCGACGCTGAAGCGG
CCCATGGAGTTCGAGGCGGCGCTGCTGAGCCCC

Sequence 140

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Sequence 141

Sequence 142

Sequence 143

Sequence 144

Sequence 145

GTCGACCNCGCGTCCGCGGAGACACCGACCGCGGCGGCAGCAGCAGCAGCAGCAGCAGCGAGA

TABLE 1
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GGCAGAGGCGGCGGCGGCGGGGAGGACAGCACGGCCGAGGCTGCCAGAGGCGCCTCCTC
CACACCCCCCGCCGAGCAGCACCGGCGACAGATTTTTAAAAAATGGATTGGCCAACC
ATGGACTTATTCTACTGCAACAGTTAAACGCTCAGCGAGAGTTTGGTTTCCTGTGTGACT
GCACGGTTGCAATCGGCGATGTATACTTCAAGGCACACAAATCAGTTCTTGCTTCATTCT
CCAATTACTTTAA

Sequence 146

CCACGCGTCCGATCCTCCCCAAGGCAGAGGTGTGCGTGCGGAACCATGTCCAGCCCTACA
TCCCATCCATCCTGGAGGCCCTGATGGTCCCCACCAGCCAGGGCTTCACTGAGGTGCGAG
ATGTCTTCTTCAAGGAGGTACGAGCATGAACCTGAACGTCATCAACGAGGGCGGCATTG
ACAAGCTGGGCGAGTACATGGAGAAGCTGTCCCGGTGGCGTACCACCCCTGAAGATGC
AGAGCTGCTATGAGAAGATGGAGTCGCTGCGACTGGACGGGCTGCAGCAGCGATTTGATG
TGTCCAGCACGTCCGTGTTCAAGCAGCGAGCCAGATCCACATGCGGGAGCAAATGGACA
ATGCCGTGTATACGTTGAGACCCTCCTGCACCAGGAGCTGGGGAAGGGGCCACCAAGG
AGGAGCTGTGCAAGTCCATCCAGCGGGTCTTGAGCGGGTGCTGAAGAA

Sequence 147

NACCACGCGTCCGCCNCGCGTCCGCTTGACCCCGGTGAAGAGCGTGCGTGTGCTGAGGCC
GGAGCCGCGAGACGGCTGTGGGGCCCTCGCACCCCGCTGGGTGCCCGCGCTGCCCGGC
CCCCGCCNCGNCCNCGCCCCCGNCCNNGCTGCGGAGGGCTTGGACGCCAAGGAGGANCA
TGCCCTGGCGCTGGNCGGCACAGGCGCCTTCCCGNTGGACGTGGAGTAC

Sequence 148

TCCCAAGAGCTGCANGNNNCAGCCGCGACAGCAAGAACCAGGAGCCGGCAGACCGCGG
CGGCGGCGGCGNCGGAGGCAGGAGCAGCCTGGGCGGGACGCAGGGNCTCCGCGGGCGCAG
GAAGGCGAGCAAGAGATATNCTCTGAGAGCCAAGCAAAAGAACATTAANGGAAAGGGAAG
GAGGAAANGAAGGCTGGATACCGGNGCAGTGAAAAAAGGCACTTCCAAGAGNTGGGGGCA
CTCAACTACGCCACNAGACTCTGACCGGGTGGCCCAATCAAGCCAATGAAGAAACCTATA
ACCGGNTTAACTNTNATTGGCCTGCCTTCTNNNTNGGGGGGTGGGGGCCCAAGCCNC
TTAACCCCAACCTTCTNNNTTCAAACCTATCCCAACCTTATTNAAAANGAAGGGGANC
CTNAAGGATGGGGNTTCCCCAAGGCNAAAAAGGAAAAAAGGGGGCCCCCNNGGGAAG
CCTTCNTTCTTGGGGAAAAACAAGGCAAAAAAATTGGAAGCCTGAAAACCGGCTTCAA
AAAAAGGGG

Sequence 149

GGCCGAAAGGGGGGCGAGGTGGTGGGCGCGCAAGCGGAGATGGAATGGGGCCGGGCTC
AGACTGGTACGGGGGGGAGGCTGCCGGCTGGACCGCGGGAAGGCGGGGCTGGGGCTCGG
CGGGAGGCCACCCCAACAGCCGCCCGGGAGGAGCGCGCCAGCAGCTGCTGGACGCGGT
GGAGCAGCGGCAGCGGCAGCTCCTGGACACCATCGCAGCCTGCGAGGAGATGTTACGGCA
GCTGGGCCCGCGCGCCCGGAGCCGGCTGGTGGCGGGAACGTCTCANCCAAACCTGGAGC
G

Sequence 150

CACGCGTCCGGCCTGCTGTTNACCTGCGGGACCCAGGAACCTGGACTTGTTTCTCAAAG
TGGTTCATGGAGATGTCACCCCTACGACCTGGTGGGATGAGCTCGATGCAGCTGGCCC
CCCAGGAGCTGGCCCGCTGGCGGGACAGGAGGAGAAAAGGGGCCTGAATATCATTGAGC
AGCAACAGAAGGAGCCGTGCAGACTTCCAGCCTNCAAAATGACCCACAAGGGCGAAGTGG
AGATTACGCGGGACATGGACCAGACACTGACCCTGGAGGATCTGGTGGGACCGCAGATGT
TCATGGACTGCAGCCACAGGCCCTGCCATCGCATCAGAGGACACCACGGGGCAAGCAT
GACCACCACTTCTTAGACCCCAACTGCCACATCTGCAAGGACTGG

Sequence 151

TTTTCTTAGAATCTTCGAGAAAAAGATGAAGGTATTATTCTCAGTTTCGAGATCAGGA
CTCCTCACCACCAGGCGGGGGCTTTAAGGTAGACACTACAGGGAATCTGATCTCAGGGTG
ATCCTCTCCCTTCACTTGCAAAAAGAGAGGAGCAGGTGGGCCACTGCTCTCTGAGATGT
TAACACCCCTCACACTCCACGGGCATGCTTTGTCACTTCTGCACACCGGTGTAGCTGCAGC
TCTGTGTGAATTCAGATCTCAAGAGAAATGTAATCAAAAGTATGAGTTTCTTTCTTCT

TABLE 1
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TGGGTGCCACAGTAGGAATGAAATGATGGGGACTTTTGAAGCCCCTGGACTTGTGGCCC
CTGTAGAAGAGCAGCTTGGGCAGGGTGTGATGGCCATCTCTGTCTCTAGGGGCCCTGTGG
A

Sequence 152

TGGCGAGAGCGCTGGTGCCGAGTGAAAGATAACAAGCTCATTTTCCACAAGGACAGGACC
GACCTGAAGACCCATATTGTGTCTATTCCGCTCCGTGGCTGCGAGGTGATCCCGGGTTTG
GATTGTAACATCCTCTGACGTTCCGGCTGCTGCGCAACGGCCAGGAGGTTGCAGTATTG
GAGGCATCTTCTTCTGAAGACATGGGCAGGTGGATTGGGGATTTTACTCGCAGAGACGGG
GATCGTCCACAGACCCGGAGGCTCTGCACTATGACTACATTGATGTGGAAGATGTCTGCA
ANGTGTCAATTCAGACAGGCCAAACAGACCTTTCTGTTTTATGAACAGGGCGTGTATAT
CTGCTAACCCATATCTAGGGGGCACCTTCAACGGGTTATTGCCACCCAGCGGGACGGCA
CTTTAATATGACGATGTTTCCGTNCCATAAACCGGNTTGNNTAAAGGGTAAAA

Sequence 153

GTTCGACCCACGGGCGTCCGCGGGACCGCCGTGGGNNNNACATACTATGCGNACAGGCGC
GTTGNACACAAANGGCCCATTCCTGTAGCCTCACACTTGACTACACATGGGGGANTCACT
CGGATTCGGNTCTCCACGTGGNNGNTCTTTGTTCTGTACTCTACGTAGCTTTGGCTTTTG
TTTTCTCGTCGCAACAGGGCATGAGACTTCGTGACCTTNGGGGTCTGTATAGTCTTTGA
CTTACTACGTGTAGGTCTCAATACAAAGTGGGANATANTCATATCCGTCCGCGAAAAGTA
ATTCTTGAAAAAATTTACCCTTGTCTCCCGCNTTATGAAACGTGAACATAAGTAACTCACT
TTGCCCTGGGGCGCCTCTNNTTAAACANTGTTCTTTTGNCGAAATCATCATAACCTTCAA
CTGAAAACAATGTGGTCAACAACTGACTATGGAGGTCTTAGGCTCNGTCTCTAAGATCT
TTAACCTTGTTTATCGGCGCGTGCGGCGTNGTCCGAACGAAGAGACTATAACCCGCACTA
TAACNAAAACCTTTTTTAAATCCCACCACCTCGTGAGGGANGGGCCCTAAGACTGAACT
GTAGTAAGTCCTATTGATTTGCGTAGGAGGANTTAGGAAA

Sequence 154

NCGCGTCCGATAGTCTACCAGCCTTACCTGGTTGATTACACTTGTAAGAAAGATTAAA
AGCAGGCCAGTGACTCTGGTCTGCTTGAACATGTGAATGTAGTGGTTTGAGCAATCTGGA
GTTTGCCCTAGTGTCAAATTCAGACTGTCCATAGTGTCCAAAACCTGAGGCAGACACTA
ATGTTAACCCCCAGCACCCCGTGATTGAAACAAACCTAAATACGTATTGGGAACCTTAAT
AGCAATTTTAAGCATTCTGATAGATTTTTGTAGGGATGGGGTCATGCCATGTGGCCCAG
GCTGGTCTGAAAACCTGGCCCTCAAGTGATCTCAAGCTTTGGCCTTCTAAAGTGTGGGA
TTACAAGGTGTGAGGCATTGCACCTGGCTTAGCCGTCTTGATTTGACATTGTAATGAAAA
AGTGTGAGTCTTATTCTACCAGGGGCCCTTTTTGTCTCTTGAAAATNGAATAACCANG
GGAAGGGGGAA

Sequence 155

CCNCGCTCCGTCCATCACAGCCTCCGAAGGTGCTGGGATTACACGGCATAAGCCACTGT
GCCAGCCTGTTTTTAATAATGATATTAAGTGGGTTTGGTTTCATGTGTTATTAATCAGTG
TTAATAATCGTACTTTTTTTTTTTTTTAAAAGAAACCATGGGTATTCTAAAATCAGGAG
TCCAATAAAAGAAAGTTCTCGGCTGTGCGTGGTGGCTAACACCTTGTAGTCCCGGCACT
TTGGGG

Sequence 156

CGCGTCCGAAAGGAGTCGCGCCGCGCCGCGCCGCCCTCCCTCCGGTGGGCCCCGGGAGGT
AGAGAAAGTCAGTGCCACAGCCCGACCGCGCTGCTCTGAGCCCTGGGCACGCGGAACGGG
AGGGAGTCTGAGGGTTGGGGACCGTCTGTGAGGGAGGGGAACAGCCGCTCGAGCCTGGGG
CGGGCGGACCGGACTGGGGCCGGGGTAGGCTCTGGAAAGGGCCCGGGAGAGAGGTGGCGT
TGGTCAGAACCTGAGAAACAGCCGAGAGGTTTTCCACCGAGGCCCCGCGCTTGAGGGATCT
GAAGAGGTTCTAGAAAGAGGGTGTTCCCTCTTTCGGGGGTCTCACCAGAAGAGGTTCTT
GGGGGTGCGCCTTCTGAGGAGGCTGCGGCTAACAGGGCCCAGAACTGCCATTGGATGTCC
AGAATCCCCTGTAGTTGATAATGTTGGGAATAAAGCTCTGCACTTTCTTTTGGCATTTC
AGTTGTTAAAAACAAATAGGA

Sequence 157

TABLE 1
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CGCGTCCGGGTGTCNAGGCCATGGGGCAGCCCTGGGCGGCTGGGAAGCACGGACGGGGCG
CCCGCGCAGCTGCCTCTCGTGCTCACCGCGCTGTGGGCCGCGGCCGTGGGCCTGGAGCTG
GCTTACGTGCTGGTGCTCGGTCCCGGGCCGCGCGCTGGGACCCCTGGCCGGGCCTTG
CAAGCTGGCGCTGGCCGCCTTCCAGCTGCTCAACCTGCTGGGCAACGTGGGGCTCTTCCT
GCGCTCGGATCCCAGCATCCGTGGCGTGATGCTGGCGGCCGCGGTCTGGGCCAGGGCTG
GGCTTACTGCTACCAATGCCAAAGCCAGGTGCCGCCACGCAGCGGACACTGCTCTGCCTG
CCGCGTCTGCATCCTGCGTCGGGACCACCACTGCCGCCTGCTGGGCGGNTGCGTGGGCTT
NGGCAACTACCGGCCCTTC

Sequence 158

CGACCACGCGTCCGGGGACTCAGGCATGCACCACCACGCCAGCTAATTTTTGTATTTT
AGTAGAGACAGGGTTTCTCCATGTTGGCCAGGCTGGTCTCGAACTCCTGACATTCCGTGA
TCCACCCGCTCGGCCTTCCAAAGTGCTGGGATTACAGGTGTGAGCCACTGTGCCAGCC
CCTTCTGTTGAGTAAAGGAAGAACTTCAGGGTAAGACACTGTACAGTGCCAGCATCT
GGAGAGCCGCCAGCATTACCCCTGCCTTAGGAGGTAGTCGTCTCCTCATCTACAAGGT
ATTGAAGCCTGAGGGCCCTGGGCAGGACGATAGAGTGAGATTGCCCTGGGGACTCAGGA
AAGGAAACATGCCGTATTTNTAGGGAAGGAGCTGCTGCTGCCTCTCAGTGACTCTGGTTC
CAGGAGGGAAGAGCCGAGAGCTAGGGTTCCCTTTCATAGGGAGAAACCCAGCAGGGTTG
GGGTGTTCT

Sequence 159

ACCACGCGTCCGAAAGGAGTCGCGCCGCGCGCCGCCGCCCTCCCTCCGGTGGGCCCCGGG
AGGTAGAGAAAGTCAGTGCCACAGCCCGACCGCGCTGCTCTGAGCCCTGGGCACGCGGAA
CGGGAGGGAGTCTGAGGGTTGGGGACGTCTGTGAGGGAGGGGAACAGCCCGCTCGAGCCT
GGGGCGGCGGACCGGACTGGGGCCGGGGTAGGCTCTGGAAAGGGCCCCGGGAGAGAGGTGG
CGTTGGTCAGAACCTGAGAAACAGCCGAGAGGTTTTCCACCCGAGGCCCGCGCTTGAGGG
ATCTGAAAGAGGTTTCTAGAAAAAGGGGTGTTTCTCTTTTCGGGGGGTCCCTCACCAA
GAAGAAGGTTCTTTGGGGGGTCGCCCTTNTTGAGGGAGGCTTGCGGNTTAACAGGGCCAA
AAAANTTGCCATGGGATGTCCAAGAATCCCTGTAAATTTGATTAAATGGTGGGGAATAA
AGCTTTGCAACTTTTTTTGTCNATTTAATTTGGTTAAAAACA

Sequence 160

TCCGCTCCCTGTTTTTCTTCTTTTTCTTTTTGCTTGTATGCACAACGGTAGGACTTACT
TCGTAAGAAACAAAATGCCAGTATTTTCTTAAGCCATGATGTGAAACCAATGACCCTGTG
ACCACATGGCACAGAACACTAAATTTTGGTCCCATGGCTGAAACTTGAGGGTGACTAAAA
GTAATGCCTGTGAAACATGATATCTATCTGGGATGGCCATTTGATCTCTAAAAGGAATTT
TGTNCACTCCACAGAACTCCTATCTATAGTAAAATTTGATTTTTT

Sequence 161

CGTCCGGAAAAATATTAACAACCTCATTTTAAGATTCAAATTAACATAATTCCTGCATATA
TGACATTCCTTACATAAGCGAACACTAAACAAAAATGGCTAGAAATGTCTTTTTCTTTCT
TTTCTCTCTTTGTTGTTTAAGGTATTAAGCACCGAATTATTACATGAGACTGGCAGATAG
CTATTAATCCTCTTACAGATTTGAGAAAGTTGATTCTCAAATATTTATGCACCTTCTCCT
TCATTGTTTTCTTAAATCTGTCCTCTTAAAAAGCTTCTTAAGAGCTCAGTTAATGCTTT
TGACTTAACTAGGAGAAAAAGGCATGATAATACAGGCAAGATGGCATTGTTAGCAATTCT
GGTAGGTGGTTTTGGAATGAATCCTAAGAGGCAAGGGGATCTTAAGGACAAGGAAGAGAA
GAGAGAGGGGGNGGGATCCCTTTGATCTCTTTCTCTGGNAATCTTAAATGCNTAATTTTA
CTAAAACATGTTCTCAATTCATTCATAT

Sequence 162

CCCCGCGTCCGGATTAATGAGTGTATGCCTAGCTCTTTCTCCAGTTTACTTTTAGACCAT
ATTGTTGTTTGTGTTTGAATATCATTCCTTAGGCTATGTTGAGAGTAGAGTGGCTTCCCAT
TAGGAGAACTAATTTAGGGCATGTCTTTTGTGAATCCCGTCAGCATATTTAACAAATTC
CCAATCTAGATAATTTCTTTTATTTCTCTAGTACCCTTTGCCAGGGGCTCTACACATC
AAAGGTGTTTCATGAAGTATTTGTCAAAGGAAAGAACAGTAATGACACCTAACACATAATG
AGTGATTAGTATGTTCCAGGCATTGCGTGAGCTATTTACTGTGAGTGATTTAATGTTATC

TABLE 1
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TTCCCAGCAGACCTCTGAGGTAGGGTACTAGTATGATCCCCATTTCTGTACATGAGGAAAC
TGACACTAAGGGACATAAAATAAGTTTTTGAAGTCACAAAGTGAATAAAAGGAAGACCAG
GGTTTTAATTGGAAGCCCAT

Sequence 163

TAGACTTTTGCAGTGTTAAACACAGCTTCCTTAACCTTAGAACTGGAAGTTGTAGAGCT
CTCCTTTTGGTGCTTTCCAGCCTTTATACACACTATTGTAGCTTTCTTAGGTTTGATAG
GTAGCGTTTCAAGTAGTTTAGCTGAGACAGNGAATGTATTAGGTTCAACATGACCTTGTG
TTTTATTTGTGTTTGCCAACAGGATGCCTTATTTGTTTGAGAAAAAGATGTACTAGTGTG
ATTCTAAACTATCTCCTTTTTTAGGATTCTAAAGAAGTTAATCATCATCCTTTTGTTTAT
TTTACCACCATTTAGTGCCTTAAATCCTATCAAGAAAGCAGTGTTACTGCTCAATGCCCA
AATAAGACACGCGGATATTGCTATTGCTTGCTTTTGAGTTAACAGGCCNACTTTTTATAC
TTAAACCTCA

Sequence 164

GCCCCGAAGTCCCCTGTCCCTGCCGAGGCGCCGGCGCCGTCCCCTGTGCCCTTGACCAC
GCCAGCCTCCGCCGAGGAGGCGATACCCCTCCCCGCGTCCTCCGACAGCGAGCGGTGCGC
GTCCAGCGTGGAGGGGCGCGAGGGGCTCTGTACGCGCGCGTGGCCCCGACGCGAGGCCCG
GCCGGCCCCGGGCCCCGGGGCGAGATTGGGGGCTGTGCTGTGCGCCATCGCCCCGAGCGCAG
GAAACCGCCGCCACCTGACCCCGCCACCAAGCCTAAGGTGTCTGGATCCACGGCAAGCA
CAGCGCCGCTGCAGCTGGCCGTGCGCCCTCACCACCGCCGCCAGGCTCCGAGGCCGCGCC
CAGCCCCAGCAAGAGGAAACGACGCGCCAGCGAACAATCGGCGCATACGGTCGAACACN
GGAAGCCCCCGGACCCGGACCCAACGCCGGGGCCCCCGG

Sequence 165

AGTCCGCCCCACGCGTCCGGTGAGTTTAGCGCTGCTGTCCGGATGGGTTGGTAGCAGACA
GGGTGGAGTAGGGTTAAGCACACTGGTCACCTTAGGATTGGTTTCCTGGTGCTGGAGAAT
GGTTAGGACACAGGCCTTGAAGGTTTTTTGAGTGTGAAATATTACTCAGCGTTTTCTGC
AGACCTCGCGGGCAATGCCGCTTCTAATTTATCCAGGCCTTCTTCTGTAGGGAGGGCCT
GTTAAGAGTTGAGCAGCCCCGATTTCTGAACCCCTCTAAAAAGCTGTGGCTGATTGGTGGC
TTTTTTTTTTCTTGAGAGGGGGGTGTCAAAGATTTCTTTAAATCGTTAGTGATGTGGT
CTCGCTTTA

Sequence 166

ACGCGTCCNAAAATGTGTGGTACATGGAATATTTTTATTATGCTTATTTCTGATTGCCA
GGTAGATGGCAGCCTGACATTCAAAATATTTTTATCAGCCCCCTAAATGTTAATATTTCC
CAAATATTTAAATCAGTAGAAGACATTTTTACTATTAAGAATAAAAAGTTATAATATAA
AATGGATTAATGCCAGATTATATGCTAAACAAGTCCTTTAAATTTTTAACTTAATATTT
TTAACAGATTTTTTTTTGAGATGCAGTTTTACTCTTGTTGCCAGGCTGGAGTGCAATG
GCACAATCTTGGCTCACTGCAACCACCACCTCCCGGGTTCATGCGATTCTCCTGC

Sequence 167

CCGTCCGCGAGGTTAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCATCTCTA
CTAAAAATACAAAAAAATTAGCCAGACATGGTGGCAGCCTCCTGTAGTCCCAGCTACTC
GGGAGGCTGAGGCAGGAGAAGGGCATGAACCTGGCAGGCGGAGCTTGCAGTGAGCCCCAAG
ATGGCGTCACTGCACTCCAGCCTGAGGGACAGAGCAAGACTCTGTCTCAAAAAAAAAAGA
AAAAAAGTGGCACAGATCAATTATAAATCACTGCTTCAAGGCCAGTGCTCTCACTTTGT
ACATTAATAATCTCAGGCCCAAATAAGATAAGTGATATGTCAACGTATGTTCACTTTGGT
CTTTACATGGCAGCTATAGTATACCGGAATATTATAAGCTCAGATCGTCATAGCTACATA
ACTCCTTTAGTTGGGAAGANACGCCGTAAATGCCCATCAAGANTAGCAAGCTTGCAATT
GACT

Sequence 168

CGCGTCCNGGTAACCTGAATAAGGATTATGTGCCCCACCCTTACTCTCATTCTGCTTCC
TCTTGGGCTCAAACAGGGTATGAGTATGAAGATTTTGCCTTATAGTTCCTGAACCTGAACCT
GCTTGCTATCCCTTTCTCCCCACCACTACCTTATTCTTCTGCTCCAAATTGCCAC
TTTGTTTTGAGGCTTCCTTCCCTACCTTATTATTCTGAAGGAAGTAGAGATCTTGCTTCT

[illegible]

TABLE 1
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TGTGGGAAGGATGTGCGCGCGGATGGCCGGTCGCACAACAGCGGCCCTCGGGGGCCCTA
CGGCCCTGGCTCTGCCTCCTGGTGGCCCTCGCCCTGGACGTGCTGAGAGTGGACTGTGG
CCAGGCTCCCCTGGACCCTGTC

Sequence 176

GAGCTGGCTGGTGTGTTGAGCTGTGGCAGAAGCACCTGGGGCTCCAGGGAAGCANGCTGGG
AACTGCAGGACCTTGCTCAGCCAGGAGCACTTCCCCCTCCTTGAGGCAGGAATACTGAGG
TGCTCCCCACAGATGGAGAANGTGGAGAGGAGGATGGGCCTCAGGAGCATCTCAAGCCC
CAGTAGCAGGANAAAGAAAGAAAGAGATGCCTGGTTTTACAGACTGGTTCCTGTGGCTG
GGATGACTGCATCCTTTTTTTTTTTTTTTGAGACGGAGTTTTTGCTTTGTCGCCCAGG
CTGGAGTGCAATGGGGTGATCTCGGATCACCAGAACCTCCGCCTCCNGGATTCAAGCAAT
TNTCCCGCCTCAGCCTCCCAGTAGCTGGGATTACAGGCACGCACCTCCACCGTNCGGCT
AATTTTGTGTA

Sequence 177

CCTTGTNAGGGGACACAAAGAAAAATTGAATAAACTGTATGATTTAAAAGATTATCGGGA
GAGTTACCTCCCGATATAAAAGGAAGGATTTACAGAATGTGACCTAAGGTCTGGCGTAAA
TGTGCACCGGAACCGAGAAGGCCCGGATTGTCATGGACGATGAGATACACCGGAATATCA
TGGACATATTCCTTTAAAGCGCCCTTTATCTTCAAATGCGGCACGGAACCGGAGGCTTTG
AAGAACTCAAGGAAGCGCGGCACGATACCGCCCGCAATAAACACGCCGCCAAATGTCCCG
AGATTGAGCGCCAGATTGCCGCCAAAACGGCCCATATGACGCAAAACAGCGACAATGCG
CGGCGGCAATCGGTGCAAGCTGTCAGCCAGCGCCGCGTTGCGTAATATCTT

Sequence 178

CACGCGTCCGACCGGAAATGCTGACCTGACCTTTGACCAAGTACGNCGGTGGGGGGGGG
GGACAAGTGGGGTGGTGGTATTAAGTGGCTCCGGTGGGTCTTCAAGCCCCAGGAACCCCTC
CAAGGGGGAACAAATGGAGGGCCCTAACGCAAGAAGCTTCAATCGGTCCCTTGGACTGG
GCTTCTTTCGGTGGGTGGTGGGTATGGCCCTGGGCTGGCCTTNCCTNAATCTTCTT
CCCTNCCTGGGGCAATCTGGCTGGGTGGCCAAGTGGCTTGCCCCGGCAACAACCTTTGGC
TGGCTGGCTTACGGTCAANGGGTGGCCCTGGCTTGCCCCAAGAACAAGGTGGCNTTGC
TTTGCCCCCGGAAGGGCCCTNGTAATTGCCCGCCCCGAGCAAAAAAGCCAAAGCCACC
TTCAAGGGTGGTTTTCCAAGCATTTTTAATTGCCCCCCCAAGCAACCCCTTAATTGCCCAA
CCCTTGTCTTTCCCCGGCCCAAAAGAACCCTCCNAACCCCCCAACCCAAGCTTATTGGA
ATTTTCCCAATGGGGGCCCTTGGCCCTTACAAAACCGGGGGTTTACCCCTTGGGG
AGGGGAATTAACCCCTGGGGAAGGAAACCGGTTTTGGACCANGGGGAAGGTAAGGCTTT
AAANCCTTGGGGTNGGGGCCCAAAAGGGCTTCCCCTAAATTGTTAACCCCTTGGCNTT
TT

Sequence 179

CGTCCGGAAGAACTGTTCACTACTCACTGTAGTGCCCTCCTTGAAATGTGTGTTTGTCA
TTCAACTAACAATATTTGGGGATCCCTGTAGTAAACACTGTATGAATTTACACAGTCTG
GCCATCAAGAAAGATCACGGAGTATATTCTAGATGGGGAGGCTACTAAGTGAATAGGAAT
CACCACGCTGGGCTGTTTATTAGGTACAGTAATAAACATAAGTACTGGTTGCAAAAANAAA
ANANAAAAANAAAAA

Sequence 180

CCNCCGCGTCCGAAAAGACAAGACAGCATACTGTATTTTCTCTTAAATTCATGTTA
CAATTAATGATTGTTNTCTGAGAATAAGTTAGCTTCAGCTTCTAATCGATGTGTTCCC
ACATCTACAAATTGATATGAAAAATTATTTGAAATGCACACTGCAAAATGGTGAGAATA
TGAAAGTTACCTGGGAATTAATCAGAACTGTCTCCATATGACTATTTCCAAGTCACAAT
CATAACTTTCTTAATAGCAATGGTTATATATGTGGCCAGATAGTATTGAGTTTCACAGTA
ATGTCTCGGTACATAAAGATAGCANAGCATAGACATAGTACAACAATTTATTATTTCTG
CTGATTGCCAAATGTGCATAAACTATAAAGATATATTTTCCAGCCCAGGTGACAGAGAC
CCTGTCTCCCNNTTNAANCTTCATGNTAAAGGTGCGGCCGCTAGACTAG

Sequence 181

CGCGTCCGCTAATCAACTTTTAAAAATAATGTTTTACGGCCGGGCGCGGTGGCTCACGCC

TABLE 1
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TGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGGAGATCGAGA
CCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAATACAAAAATTAGCCCGGC
GTGGTGGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGATTTTTATTTTTGAACT
TTTTACAGAGAAGGGGGGTCTCCCTATGTTGCCAGGTTGGTCTCAAACGTTTGGGCTC
AAGTGATCCTTCTACCAAGAGTGCTGGGGATTATAGGCATGAGCTGCTGTGACCGGCCC
AAAATCAAATTTCAAACTAAAAAATTCTCAGATAATTAATGAACCTACGTGAATTAAT
CTACAAATTCAGTTTGAAAAACACTAAAGATAAACAACTGTCAATGTGGGAACTTAAA
AAGTANGTTGGTATTTAGGTTATTGGTTAAATGGGGGACCGACTGGCATACACAGTCCT
AAATATTTAAGTCTTAAG

Sequence 182

CCCTATCTTNCGGTACTGGTGGGCCAAATTCCTGGGACCAGGTCAAGGTGGGCTGCCTCA
GTAAGAAGGAAGGACTGGAGAGTGCCCATTTAGAGGAGCAGGCTGGTGGGGGCCAGCCA
GAAAGTAGTTCCTTTGGGGGAAGATGTTGGACCTTTATTATTTGTGGTAACCAGCCGA
GGCTGGTTGTCAGGACAGCAGGTGAGCCACTTTAGGGAAGAAAGTGCAGGGGTGGGTGGA
TGCCAGATTACCAAGGCCAGCCACCCTGATGGGGTAGGGTCTGGTTATCTGTGTTCAAG
AAGCAAATCCCACCCCAGCCCCAGCACTAGCTCTCTATGTATGTATTTTCCCTGTACAAT
GTTTTATAAAGAGATCATTAAATTTAAAAAANAANAANAANA

Sequence 183

TCGTCCATTTACCTCACTTATGGGGTAAAAGGTCACCTCAAGTAAGGTTAAAGGTTTTCC
CTGGCAAAGGACCTAACCAGAGCCCCNAAGGGGGGAAAAAAGGAGGTCACCTTTGGGGA
GGTACCATGGCCNTTTTGGTCTGGCCNNTTGGGNTCTTCAACAACAAAGGAATATTTT
ACCAGGCCCTTTTGGAGGCCTTTGGATAATTTCTTAAGAAATTTGGTTACCAGGAAGAAT
TTAGGCTTCNTNGGNAAAAAGGAAAAATTAGGACCTAGGAAAGGGAATTAAGGGGGNAA
GGGGAATCAATTAAGCNTTAATGGAAGGGGGTTTTACTTCTGGCAATCAAGAACCGGC
TTTTCNTAAGTTTCNTAATGGAACTTTAAACCGGTNCCTAATANGGGCTNGTAAANGGG
GTTCTCNTGGCGGTGGNAAACCACCTTTCTTTTCTNNGGGCCCTTCCCTTTTCTGGNCC
CCCAATTTNCCCTTCTTTNAAACCCTTCAAAGTTTGGCCTTGGAGGGTTTTTAATTAAT
CCCCCTTGGTGGCCANTTCCCTTGGGGGGCCAATTGGGTTTCAATTTCCANCAATTANTG
GNAAAAACCAAANTCCAAGGGGAAGGGACCCCTTNGGGCTTAANTTTTTCTTTTAAAT
CTTCTGGGAATTTTNGGATNNGGGGAAAAAATAAATTAATTAATTTCTTTTGGGGCG
CCCTTGGCCAAGTNGGGGGGAAAAATAATTTNGGNTTTTNGGGGGGGGGNTTTGGGGA
ATANCCTTACCAAGGAACCCCTTCTTGGATNCCTTTTGGGGGGTCTTTTCAAAAAAT

Sequence 184

GCGTCCGGTTGTAGTTTCCCTTCCCATTCTCTTGGTGGCCCTGGAAGCTTCTAGGCACAA
GTGTGCCACCCTGATTATTCCNACCCTCCATCCAACTTTTCTCTCTGTGGGTGTCTG
CACCACAAGCTGCCTACCCTCCAGGTGCCTCAATGGTCCGGCCACCAGTTGTGCCTCGGC
GCCCCCGGCCACATCAGCAAGTGTGAGGAGGCTCCACCCAGGTGCCACGCACGGTG
CCTCATACCCAGAGAGTAGCCAACATTGGTACTCAGACCACAGGACCCAGTGGGGTAGGA
TGCTGTACACCAGGCCGCGCTCCTGCCGTGCAAAATGTTCTCAAGCAGCACATAAGCA
CCTATCGGGTCCAGGAGCGGCTTGTGCACATNCCAGGACAGGAGCCCCTGACCGCGTCC
ATGCTGGCTGCGGCGCCCTGCATGAGCAAAAGCAGATGATTGGGGAGCGTCTCTACCCC
CTTATCCATGATGTCCACA

Sequence 185

GTCGCCCCGCGTCCGGGCATTTGTATTTTCAACAATTGTTCTCAAATTTAGAAAAGAGAC
ATCGCAAGATGGTGAAATAGGAAGCCCTGGGCCCTCCTTCCCTCCACAAACACACTGATT
TGACAACAGTTCATGGACAGATTCCCTTTATAAGAAACCAAGAACTGTTAAGAGGCTCT
TATACCCCAGGTGAGTGCAAAATCATCCACATCAAAGATAGCTGGGAAGTTCAAGACACC
TTCTTTCCGTAATTTCTAACTGGCACAGTACTATATGATTGAGATGAATCTCCCCACAT
CCAAGCTTCTGCTGGGGAGGAGAGGGGAGGGTATACCATTATGTCCAATGTTCCAACCTC
CTCTAGGAGCTACCCAGGTAGGAGGTGGGTCCAGCTCTGTGAGGCTTGTCTTAAGAGCAC
TGATTGAGGGTCTGGTATTCTTAAGTGGCCAGGACCATAAGAGCAGTGGATGGTGTCTG

TABLE 1
34/467

GGGNTNNGNNGTGGGTTACCCATAACCCCTGGTTTTTGG

Sequence 186

TCCGAAGCAGTGAAAATAGTGTGTTGACTCCATTGACAACCTAGAGGCGGCTCCTCATGAT
ATCGGCTACGTCAAACAGGCCATGTTCCACTATTTCCAGGTGCCAGATCGGCTAGGGATA
CTCACTCACCTGTATAGGGACTTTGATAAATGCACGTTTGCTGGGTTTTGCCGAAAATT
GCAGAATGTGCTCANCAGGGAGACCCCTTTCCCGCTATATCTTCAGGAAGGCTGGGGAG
ATGCTGGGCAGACACATCGTAGCAGTGTTGCCGAGATTGACCCGGTCTTGTTCCAGGGC
AAGATTGGAATCCCCATCCTGTGCGTGGGCTCTGTGTGGGAAGAGCTGGGAGCTGCTGAA
GGAAGGGTTTTCTTCTGGCGCTGACCCAGGGCAGAGAGATCCAGGCTCAAACTTCTTCT
CCAGCTTACCCTGATGAAGCTGAGGCACTCCTCCGCTCTGGGTGGGGCCAGGCCTAAGG
GGCCAG

Sequence 187

CGTCCGCGTCGCTCCCCTGCTCGGGGTCAGCTAGTGTCCGCTCTGCTCGGCCGCGGGCTC
CCGGAGGACTGCAGGCAGGATGACCGCAAAAACACGGGTGATTGGTGAATGGAAGTTGCT
ATGGGCCTCTAAGGGCCATCCCAAGCCCAACCCAACGTTAAACGGTCCACAATCCACCAA
GGAAGTCAAGCTTTTGACACAACTGCTGAAAAGCTGGGAGGGTTTCTTCTGAAAGAAAG
TTTTTTTTTCAACCCTGGGGGACACTGGTGCCCTTTCCACAAGCCAGGGAATTGGGTTT
ATGAAGCAAGCTTGGCTCTAAGGGGGGTGACCTCAAGATATTTGCTGGGGGGTTGTGAGG
TTTGGTGGTTCTTGGGAAGTGTGTCTCAAGCTTTGGGGGCCCTGGAAGTGTGCTTGAAGT
GCCCTCAGGCCTGTGCCCTTCTGGGGCCGGGGGTCTTGTGGGTGNATNCGCAAGCANGGA
AGCCTGGGGGCCATTGGTCCATTNAAGAAGGCACCCCGGGGCCAAACCTTGCTTGGCTAT
ANTATCCAAGCCTGCTTCAACCCNTGGGCAGGCTT

Sequence 188

TCGACCNCGCGTCCGGCTTCGACGCCTTCCCTAACATCGAGAAGGTGTCCAAGATCACGT
CTCCCGTGCTCATCATCCACGGCACGGAGGACGAGGTGATCGACTTCTCGCACGGGCTGG
CGCTCTACGAGCGCTGCCCAAGGCGGTGGAGCCGCTGTGGGTGGAGGGCGCCGGGCACA
ACGACATCGAGCTCTACAGCCAGTACCTGGAGCGCCTGCGTCGCTTCATCTCCAGGAGC
TGCCAGCCAGCGCGCCTAGCGGCGGCCCAACCGGCCGACCTCAGCAATAAGGCGGCC
CCCGGACCTCACCCCGCGCCGCGCCCAACCGGGGCTGCATGTGGACCCCGGGCGGC
CCAGGGGACCCCGCCCGACCCAGGGGCTGTGGACGATGTACAGGCAACAGAGCTACCGC
ACTCCTTTCCTTTTGAAGCAAGAAGAAAATACGTGAAAACGGGAAATTAAGATTTAA
AATTTTTNNNNNTNNANAAAAANNAAGTGCGGC

Sequence 189

CGCGTCCGAAGCCTTTTGTCTCAGAGAATTTATTGTCTGACAGCAGAGGCCGATGGTGG
GATCGACTGGCCCTTAATTTACACCAGCACTTGAAGCCGCCTGGAACCCGACTATCAAGT
GCATCACAGAGGGGCTGGCGGATCCCGGAAGTCAGAACGGGACACCGNCTTTCACTGTAT
CAGCGAGCCGTGCGCCTGCGAGAGTCTCCGAGCTGTAAAAAGTTCAAGCACCTCTCCAG
CAGCTCCCAGAAATGGGCTGTGCAAGATGTGAAACACGTGACCATCACAGGCAGGCTGTG
CCCACAGCGTGCGGATGTGCAAGTCTGTGTTTGTGATGGAGGCCCGGGGAGGCCCGCTG
ACCCACACAGGTCCTGTGCTCTGTGGAGGAGCTGGCACTGGCCCATTACAGACGCAAGC
GGTTTTGACCAGGGGATTTCATGGCGAAAGGGTCCACCTTCAGCACCTTGTATGGCCTTC
TTNCTGTGGGGACATCATCTTCATNGGATGGGATTCCCGGATGTCTTCAGAAACGCCTGT
CANGCATTNCCCCTGG

Sequence 190

CNACACATGCGGAATCATAGGCCTGCAAAGCTCCTGCTATTCACTATAACTCTGCCATGC
CTTAGGCACTTCCCTAACCTAGAATTCTGAGTGAAGGACAACAATAACTAATACTTTTGT
TCAGGTATTACAAAGAAGTTAAGAGTTCATAAGGCACCTAAGTAAAGTCACATTGGTTAA
GAGTACATGTCTCCAGATACTCTTACATTTGCAAAGNAATTGCATTTCTGNATCTATGGT
CTGTAATAAAATTGAAGAGTTGNGAGAATAAAAGCATGTTGTCTTTGATAAATTGTTTT
TACAAAACAGGCACAAGAGAGGCTTGAAGGGTCCTTGCTATCTTTTAACCTATTTTATAA
TCTTTGCTGCATAAGAAACAAATATGCTTATTTACATTCTATACTTAAACATATTATCA

TABLE 1
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ACTTTTATTCTGAAGATAATACACATGAAGGCTTTAACTTTAATCTTCAATATATTTTT
TAATCTCCCTGATGAATTAGGGAAATAAATATTGGG

Sequence 191

TCTCCCCCTTCACCCTCCTTTTTTTTTTTTTTTGTTTTTCTTAAAAGCATTTAGCTGG
GTGCAGTGACACATGCTTGTAATCCCAGCTATTGAGGAGGCTGAGGTAGGAGGATTGCTT
GAGTCCAGGAATTTGAGGCCAGCCTGGGGAACATAGCAAGAGCCTATCTTAAAAA
AAAAAAGCATTTC AATTATTTTAAATTTNTAATTACAAAACAATTCTTTCCTGTCTTAG
TTTAGTTTACTTTTTACTCACAAAGTTCTTGAAAGTAGTTATTACTCAATAATTGAATG
CATGAGTGTCAACTGCAAAATCTATGCATTATGTAGNGATTGAATCAATTAGTCTTTNT
TGATACTCCAAAATTACCCTTTTTCGAGNGTCTTTATCANAAATTTGATAAATCGGAACT
T

Sequence 192

TCCGCCCCGTGAGGGGCAGCTGTGGTGTGGTGTGATGATGCTGGGATAGGCACTCAGATG
GTTGAGTCTGAGTTTGGCTCTGATATTATCAACTGCATGGGCAGCTGTGGTGTGGTGT
GATGATGCTGGGATAGGCACTCAGATGGTTGAGTCTGAGTTTGGCTCTGATATTATATCA
ACTGCATGGGCAGCTGTGGTGTGGTGTGATGATGCTGGGATAGGCACTCAGATGGTTGAG
TCTGAGTTTGGCTCTGATATTATCAACTGCATGGGCAGCTGTGGTGTGGTGTGATGAT
GCTGGGATAGGCACTCAGATGGTTGAGTCTGAGTTTGGCTCTGATATTATATCAACCGCA
TCATTTTGGGGAAGACACAATTTCTCAGAATTTATTTAAGTTGTAAAAATAA

Sequence 193

ACACATTGCGGCACCGGGCTGGGCCTGGCCATCGTCAAGCATGTACTGCTGCGCCACCGC
GCGCGCTTGAAATCAGCATGTGTGCTGGGCCATGGCAGTACGTTACCTGCCATTTTCC
GCCAGCTCAGGTGACGCGCACACGGCTGGTCGGGAATGATGAATAACCTGAAGTGACGAC
GACCCAATGTGGGAGCTGCTGATACTTTGCTGTCTCCGCCCAGCAGTGGGCACTAGGCAA
GCGCCCCATCAGCCGCTACATTGGCCGACTTGCGCCTGCCTTTCAGGCCCTCTCGTCAAC
CCTTATTGAACACACGGAACCTGCAAAACCCATCATGGACCCTTCCCCTGGTATTACCC
TCGCTACACTCTTCGCCGATTTCCGGCATGATTCTTTTTGCACTGATCCTGGTACTGCTCA
ACGGTTTCTTCGTTGCGGCGGAATTTGCCATGGTCAAACCTGCGCTCCACCGGGTTCGAGG
CCATTGCCACACCAACGGGCTGGCGCGGGCAGATCCTGCGCACCGTACACAGCCAGCTC
GACGCCTACCTGTCCGGCTGGCAGCTGGGGTATTACCCTCGCCTTCTGGGTTTGGGTTG

Sequence 194

TGAAATCTCCTAATACTGNGTTTTTATTGTTATGTATTCTATGTTTTAAAGCTCCTCA
AGGTATTGTTATTCTTTTGATAATCAGTGTTTGGTGGAGCTGTCTGTAAATTTTCCTC
TTTTTTGCTCTTTATTTTTCTTTCAACTCAGACCTTCCAAAATGGGATTATTTTTCTTT
TTTCTTTAGAGACATTTGCTTGATAACAGAATTTAATTTGGCGGCTATTTATTTTTTTC
AGCACACTGCAGGTATTAACCTACTTGCTTCATTGTTGGTTTTGAAAAATCAGCTGTTT
TAATGTTGCTCTTTGAATATAATCTGCCTTTTTCTGTACTTGCTTGNCTTTAAGTTTTTT
GTT

Sequence 195

CGCTCCCTGGTTTCTTGCTCATGAANAAGAAAAAATCCTAACTGTTCTTGATGATCTTT
AAGGCTCANAATGATCTGGACAGAGGTATTTACCTTGAAGCTCATAAAGCATAGGCCTTT
CTCACTTGACAGATATCTTTCTGAAGCTGGACTAAATTGGTTAAGGCCACTGTACTTTTC
CACTTTGTCTTTCTTTCTGTACACACCCTATCCTTTCAGGCTGTGTTGGGATGGACAAA
AGCAGTTCTGGAGTCTAAGGAGAAGATGAGTGGGATATGTTTCTGTGACCTGCAGTCAT
TTTAAAGTTTAGCTGTTGCTAGCTGACTCCATGTAAGAATACCTTCCAGGAATTTGATGG
CTGTGCACTCTGGCAGTGCAACTGGCATGGT

Sequence 196

CNCGCGTCCGGCCCTGATTGATGAAGCACAGTCAGTAAATCATCTCTTCATTCCCCAGTT
CTTAAGCCAACATCAGCAACACTGAGAGAACATTAGATTAAAGGCAGGTATAGAAGAGAG
ACTTAGGGTAACAAGTTAGTGGGTGCCTGAAGGCATGTGGGAAGAGATGTGGTAAGGTG

TABLE 1
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TGCACACTATTCCTTACGTGACTTAAATGTCAAGGGGCTTGGTGTGGTGGCTCATGACT
GTAAACTAGAGCACTTTGGAAGGCCAAAGCTGGAGGATAGCTTGAGGTCAGAAGTTCAA
GGCCAACTTGGGCAATATGGCAAGACTGTGTCTCTACCAAAAAAAAAAAAAAAAAAAAA

Sequence 197

CCGTCCGGAGAGGCTGTTNTTGATNGATACTCCAGAATAGACACGGGCCCTTGAAAAGCT
TGTACCTTTGGGGAAAAGTAGACCAGGAAAATCTCAAGCCAGAGAAGGACTATGAAGCTT
CTTTTCCAGTTACACATGGAAATAAGAGGTCTTGCATGAGAAACCTAAATCAACCCCTT
TNTNTTAAAGCAGGTTTTGGAGTCTAAATTTATACTAATTGCATTGTGGAGCAGGTCTAG
CCAAGAAATTAACATGACAATCAGTCTCTAATCTGTCTGTCTATCTACTTACTTACCTAC
CAGTCAGGCCAAAGAGATTCCCACAAGTAGGTTAAAAAAGTAAAGTCTGATAACAAATA
ATTAGTAAGAATGAATGAATAAATAAATAGCACAAAGGAACACTCTACCACAAGGAGGAG
TACTCATCACATCAAATGAGAGAATACCCTAAGAAAGTGAAGATAATGCCAGCAATCTGAA
AGATATTTTACCNAACGTGTTTAAATGNNTAGGTTATTAAAAAAAAAAAAA

Sequence 198

CTAAGCTGTTATTTTCCCTAAAAATGCTTCCCTTGCACTTATACTTATTAAGAATAGATA
ATAGCTAACATCTATCCACTGCCTTTGATTCATGAGGCCCTCACGAATTGCCTCATTAGG
TCTCCGACAGTATGGTACAACTACTCTTTATATTTTACAGATGAAGAACTGAGGCTGGA
CTGNTACCTTTTGTACACATCCTAATG

Sequence 199

AACCTGTTTTGTTAGATGTGAATCTAGGAAATACAATATATTTTAAATGTAAAAGNACTC
TTGCTTTACTTGTAAGCTGATTTTCGTTTTTTTCCCTCAGGCCATCAAGCCCTGTGCTC
CTATGACCAACAATGCTGGCAGACTTTTCCACTACCGGATCACAGTCTCCCCGCCTACGA
ACTTTTAACTGACAGGCCAACTGTTATAGAATACGATGATCACGAAGTATATCTTTGAA
GGATTTTCTATGTTTGCACATGCCCCCTGACCAATATCCACTGTGTAAAGTAATTAGA
TTCAACATAGACTACACCGATTCAAT

Sequence 200

AATGCAAGAACATCTGGATNAAATGGCTTTCTAGATGAGAATGGTTGCATTTTTTAATGG
CTATTTCTGGTAGAAAGGACAACATGTGATATTCATCGACCCTCTTTCTCAGACCCTCTTT
ATAACAGCTAGTATGGAAAAATCTGTCTTTCTATAAATATTTTCCCTGGGGAATGGNTT
CCCATTAATGTGTNGGATGCTTTGNTGTTTCTCTCTTGCACAGCGTGTATGTTGTCATCT
GCACTTAAGAAGTGAATGGAATTGGGAATCCTGGTTTCTTGCTCTGGCTGGAGGTCCCA
AGTCCGCATTGTGATTTTGGGAAGTCACCGTTGTTCTTCTAGATCTAATTTAACTCATCT
GTAAANAANNNGGNTNGAATCCGACAATTTTCATGGGTTTCATTAGATGCCAATATTTT
ATGACTCATGATCCAGCNAGACTACACCTATTTATAAGGCTGGTTTTGCTTGTTTTTAC
TAAGAGCAACAATNACTACATATTTTCAGGTTACTCAATCATCAAAAAAATTATAAAATC
CATAAACACTTTGGATTTGAAACATTGCAACTTTG

Sequence 201

CGTCCGAAAAGCAGTCTTTCTTGCTCAAAGTATTAANGGTGAACAATTGAATAGAGTACT
GTGGTCCGGAGACTGATTTGAGACTGCAGAGCTGATGCTGGGTAGAGGGTCTGGACTTGT
ATTCATGTTCTGTCTCAGGGCAGCCCCTGGAGCAGGAGATGGCAGAGGCATTTACAGCTG
CAGAAAACAGGGAGGAATGGAATCTGAGGTAGCCCTGGCCTCAAATTCAGGCCTGGCTG
TATCATTTACAGAGATTTTCTGGAGGGAAAAAGTCTCATTTCTGAGGAAGGCAAGGNGG
GCTAATCATTATTAATTTTTTTAACTTTTTG

Sequence 202

GCGTCCGGTTGAAGAGGGCAGGGAATAGGGGTGGGTGAGCGTGAACAGAGTCAGGCTGAT
TGCTGCAGGGTCCCTTGCAATAGTTCAGGTGAGAAGAGACCCGAGTAGGCCAGTGAGCCT
GGAGGAGAGGCTCTCTGTGTGTTAATTGGTTTTCCAGCTTTTTTTCTCTATTTCATGTAGG
TTATACACGTTTCTCTGTGAATTTTTATTTAAATGATTTTTTGTGTTACTGGATCTAC
AAACAGCCCAACTCCAAGGAATCTGGCATCTCTCAGTGGAGCATACAGGTGACTTCATAA
TCTAACCGCATTAGTAACTGCCAAAATCGGAAGTAATTTCTCTCTGTTTAAAAGGCAGTG
AAACAAATTTTCAGAGCAGGTTTCTCAACTGAACAAAATATTTTGGACCTTAAAGGTGG

TABLE 1
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TATGGCTCTCCTGATCAGGGAGGGACAGTGAAAGGTTTGAGCTCTGACACTGNCCAGCTC
TCTGGATACAACCAAGTGACTTTTTTTTG

Sequence 203

CGCGTCCGAGTATATAGAAAAACCATTAAATTTAGACTCTGTGAGATTAGGTTGCATGAAG
AAGGTTTTCTGAATATTTGAAGAGTGGATAAATAAATGTCCCCCAAAGCAATAAAATCAT
AATCCTTTAAAATATAGGAAAAATAACTAATGGGAAGTGGGCTTAATACTCGGGATGAAA
TAATCTGTACAACAACTCCCATGACACATGTTTACCTATGTAGCAAACCTGCACATGTA
CCCCTGAACCTTAAAATAAAATTTAAAGTAATAATAAAAAAAAAAAAAAAAAAAAAA

Sequence 204

CGCGTCCGCTGGGAGGCTGTGGGGTCTGCCACCCAGCAGATCTGTGTACGGGAGTGCGC
CTGTCACTCGTTGAGGTGGTGGCCTGGTTCTTTGGCCTTAGGGAAGGACAACTTCAAC
TCTGAGCCTTGATTGAGTGACCTTGGCCAAGTTACCTAGCTTTTCTGAGCCTCACTTTT
TGGCNATTAGATGAACCAGAGGTTTATTTCACTCAGAATCCTGTTACGATGCTGGTATT
TGGACCAGCCTGCGGGTTTATCCTGGGCTCTTCTG

Sequence 205

CGCGTCCGAAAAAGGATGAGAAGAGAGGTGCATTCCAGAAGACAAAAGGTGTGTAGTATC
AGGATAAGGGGCTTTAAATATCAGATCCAGAGAACTGCACATGTAGAAATGGGCTTGG
CCTGGGTCAGGGCATTGAGATTGGTTACATAATCTTTCAAGGATTGGTGAATGAGTTGG
AGTATGTGTAGAAACCTACAAAGATGACAGTTTAAATCTCATGTCATAATTTTACACAAA
TAATGTATTTTAAACTGGGTGCAGTTCTTAAAGCTGTTCTAAAAGTCAATGCAACTGAA
TTTGGAAATGTAAGCATAGGACAAACAGATGGGAAATAAGTCATGACCTCTGTGGGATAAA
GTGAGAGTTATCAAAGAATGTCAGTGTTTATAACAAGGAACAAGCTTGTTTTGGAGAATT
ACTAGATATTATGGAAAATTTTTTCTTTTCTACATTTGGGTAACTATAGCTGAACTATA
GCAGATCATATTGACTTGGCAAAAAA

Sequence 206

CCNCGCGTCCGGTTATGTACTTTTGAGACTTCCATTAGAAATATTGGCAAGTCCCTGCT
TCGTGGCCATAGATTTAAAGGCCTATCAATTTTAAATGTTTCGGTCATTGAGAGCTAAA
ACATGTAACATATCACAGTGTTATTCACCAGAAATAAAAAATCAAGAGTCTGCTCAGAGT
AGGTTAATATGAGTTCTTTCTTCAGTCCAGCTGATGGTTTTAGTAAGATGAACTGCCA
AGGAGACAATGAGCACTGACTTCTCGATGCATGACTTCATCTTGTTAGAAGGTGGGTTGC
CGGGCCGCGGTGGCTCACGCCCGTAATCCCAGCACTTTGGGAGGCCGAGGCGCCGGATC
ACCGAGGTNGGGGGGATCGAGACCATTCTGGCTACACGGTGACACCCCGTCTCTACTAAA
TATACAAAAAATTGCCCGGCCGTGGTGG

Sequence 207

CCNCGCGTCCGATGAATAGTTAGCCCATGATAAAGGAATAAAAGGATGAAGAATATTTGA
AGAGAAATAAATCTTCTCACTCCTCAGGTTCCCTTCCATGTGCAGGAGCCTCAACCTAC
AACTAGCAACCTTATCTCCTGACTCATTCTCTAGAGGAGGAGTAAATTAGTCAACTG
ATATGCTCTGGAAGAAAAACCCA

Sequence 208

CGTCCGGTCTTTCTCCCCCTAAATAATGCATTACAAAGTGGAATGCAAATTTCTGTG
CAAGCTCTAAGTAGCAGGTGGTATTTCTTAATATATTGTTTTGACCTTTGGGGAAATT
GGTATTACGAGCTGACTTTGGAAAATTAATAGCATCAAGGTCCTACATTTTAAATAAA
ACAATCGATATCTTAATTTTAAATCAGACTAGATTACGATACCAGGAAAAGACATACA
TATTTTGCTTTTATGTGTTAAAGTTTGTAAATTCAGGGAGGACAAGAAAAGGGATATGGT
GCAGCTGAACCTTTCTAATTAAGACAGGAAAAAAAAAAAAAAAAAAAAAN

Sequence 209

CGTCCGGGAAAAACAAGGGTTTCCGCCAACAGGCTGAGAGCAAAGGAGGACGCAGGAAAA
CTATTTTAAAAATTGACCCAAGAGTTCAAAAGGCATATGGAAGCATTAAATGGGGGTGGG
AGGTATCCTTGTAATAAGAATACCATGCATGTATTCCCACTGCTCTTGGTGGTCTGCA
AAGTGATTTTCAATGTATTTTATGTCAACACCAGCACAAATGAGGTAAGTAGGACTGTATA

TABLE 1
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CCTCAGAGGCATTTGGTGATTTGTCAGAGTGGAGTGTAGTGTGTTGGTGCCCAGATTTGA
ATAGGATCATTTGAGTCTGATATCATCATGTTGCCACCGCCTACTCAGCCTCTACACCC
GATGAGGCCAATCTGCAGCTCACTACAGTCAATAGAGAACAGGCAATTAACCCCTTAAGTT
ATATTTTAGAAAGATTTCTGTCTAAAATAGATAAACTTGAAAGTATAGCTCTTCAAATA
ACGTATTCCTGTGTTGGCAAATATTTTCCAACTCACAAATCAACACATAGGTGTATTTCT
TAGACTACTAGAAGTGGGGACTTACCCCAA

Sequence 210

CGCCNCGCGTCCGGGAAAAACAAGGGTTTCCGCCAACAGGCTGAGAGCAAAGGAGGACGC
AGGAAAATCATTTTAAAAATTGACCCAAGAGTTCAAAAGGCATATGGAAGCATTTAATGG
GGGTGGGAGGTATCCTTGTAAATAAGAATACCATGCATGTATTCCACACTGCTCTTGGTG
GTCTGCAAAGTGATTTTCATATGTATTTTATGTCAACACCAGCACAAATGAGGTAAGTAGGA
CTGTATACCTCAGAGGCATTTGGTGATTTGTCAGAGTGGAGTGTAGTGTGTTGGTGCCCCA
GATTTGAATAGGATCATTTGAGTCTGATATCATCATGTTGCCACCGCCTACTCAGCCTC
TACACCCGATGAGGCCAATCTGCAGCTCACTACAGTCAATAGAGAACAGGCAATTAACCC
TTAAGTTATATTTTAGAAAGATTTCTGTCTAAAATAGATAAACTTGAAAGTATAGCTCTT
CAAATAACGTATTCCTGTGTTGGCAAATATTTTCCAACTCACAAATCAACACATANGTG
TATTTTCTTAGACTACTAGAAGTGGGGAC

Sequence 211

NCGCGTCCGGTTTCNTTGGGATAGATTTTACCTATGAATTCCTCCTTAGAATTCTGAAAT
TGCTCAGATTTACCCAAATGACAGCCAGTTTCTCATTTACATTTGGGGGCTGTAGAATC
TTCCAACATTGAGAACCTGTTTAAATCAAAGGATGCTTGTGGAATCCTGAATGAGGAAC
AGCATGTTGCAGGAAGAAGAGAAGGATCCTGATGCCCTAATGGGACTGATTTCTTTTGG
GGGGCAGGAAGATATATATTCGTTGGGTGCTTATAAAAGGTTAATTCCAAAGATTGTGTA
TGGTTAAAGGACTGAAAGTCACACTTAGCCTCATACTTCACTTAGATGAAAAACAAAGC
CTTCTCTCCATTACCTTGTAAAGATCTATTCCTTGTGTCTTGTGCTGAGTGGACCTGGAA
TAATGGATAGCCCTCACTGAGTACCTAGAAGGGGACTAGGGGTGGGTGATGAAAGGGGGT
TCACACCGAAGATCTAAGTGCTAGCTTGGGTA

Sequence 212

CACGCCCGTGGCCTTGCTAGAGATCCATATAATGCAGTCATGCTGTTTCTTNCTCCATA
GTATGTGGGGCATGAGGAGGAGACAGGGAGAGGGTGGCTTCATTGNGCAAANGNGGAATG
GCTGTGCTTTGGGGCCAAGGAGATGCTGTCTGCTGTAGCTGCTCTGTGAAAGGTCAGGC
CTGCCCTNTGAGGCTCCCTTTATCCTCTAAATCTGGGGCATCTACATGACGCTTCT
AGTCCACCTTTGCCNCGCAGATCATGGCTACTAACCTGACCTTTGTCTGTACTTGAGCA
CCCTTCGCGATTTAACTTNCATGTANCGTCCGACTTCTAATATGGATTGAAATTTNTTGA
CTGTTACTGCTCANAAACATCACCTTTTTTGTAGCAGNGAGCTGGNAGGATAATTGCCGA
CAAATGACATTNGGANCCGTTTTNAACCACAGGGGGCATGGGG

Sequence 213

CGATCATTTTATTAGAGTNATGTATTTAAGAACTGATAAATCATGGGCTTACCTACACAA
TGTCTAGACACATGAGCAATGAACAAATAGCAAGGTCTGTGATATCTCATATGGCAATAC
TAGGACTGAGATTATTTTTGTTACAATTAATAATTGTCAGTAAAAATCCACAGAGATCA
TTTAGAATGGGAAAAAAGTCTGATATATTTGTTTCAGATTATAATCATTAAATAGGGTAC
CTGACAGTTTTCAAAGTTGTTTAAATGTTTTTAAAGTCTTTAACCTTCCTAATCCTACAAG
GTGGTTACAATCCACATATTATCCTTGTGTGTCAGGGGTCTCCAGCACCTGCCTTAGGGTC
AGTGATTTGCTAGAAGTACTTACAGAACTCAG

Sequence 214

ATCTGACAGCCTGGAACNGCACCCACACCCCCAGGTGAGAATCTGATGTTCTGGAGCATC
ACACACAACCACAGGTGAGCATCGGAGAGTCTGGAGCAGCACCCACAACCCAAGGTGAGC
ATCTGACAACCTGGAGCAGCACCCACACCCCCGAGGTGAGCATCTGACCTCCCGGAGCAGG
ACCCATACCTCCAGGCGAGCATCTGAACCCATGGAGCAGCACCCACGCCCCCAGGCGAGC
ATNTGACCGAACAGAGCAGCACCCCCCTCTA

Sequence 215

TABLE 1
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TCCGGGAAAGACTCTGAGAAAGGACTCCTGACCTGGCTCTTCCAGAATGAGGATGGATTT
TCCATATGAAGGAGCCGGGGGAGGACCTTCTGGGTAGAGCGTGAAAAGAACACAGTATG
TGTGGAGAGCGGGAAATTGTGTTGAACTGTCTAGAAAACAGAGCCACAGGAATGCGTGTT
GAGGGCTTGGGCTGTACAGTGGAGAGTGCCCTCCCTGGCCAGGGAGTTGGACATTCATCC
CACCACAAGACCCCATGAAGAGTTCCTCAACAGCTCTGTGTCTCATCAAACCTGTGTTT
GCAGAACAGTGGAGGAAGAGAGCTGAAGGAGGGGAGAGGCCCTGCACCTGCCAGGCCCTG
GCCTAGACTACAAGGGTGAGCACTGAGCCATGCTCTCGGGGAACCTTCACTGGAGTTGAG
GGCAGTGAGAATGTTTAAAAAAAAAAAAAAAAA

Sequence 216

ACGCGTCCGATGCACACTTGTCTTTTACCACANGGGTGGGGCGTGGGANGGAGGTTTAGT
TTGGATAGCCACGTAAACGCCTTTCCCTGTGGCCTGCGATGTTCCACACCGTTTATGTGT
GAACTGGCTGCACCCGCGCCTCCCGGACGGGGCTGCCAGGGAGGAGGGCCCGGGAGACCC
CATCCAGACCCCGGCCCGCACGCTGCAGAGGTCTGCTCTCAGACATGTGGTGGGCTCCGT
GTCACGGGTAAAGGGTCTAGACGGCAACAGAGTGTCTCTCTCTCCCGCTCCCT
GGTGTGCCACCTCCCTGTACAGTGTCTTCTGTTCAAGCTGCTGCAGGGGACGGGGCATT
TTCCTCCAGACTCTATTTTCTGCAAGGAAGAGCTGCTGTCTTTTCTTACTGAAGCCC
CTGATTCTGTGTCTGATGTTGCTGACCGCCGTGCTTGCTTTCTTGCCCGTGTGCAACTC
CAATCCCAAGCACACGTGCTCACTTCCAAG

Sequence 217

GCGTCCGGGGAATGGCTGTNAGTNAAGTTAGAGGTAAAAAATTCATGTTAAGATTTTG
GAACTGGATTTTATTTAAATAATGATGCGAAGCCATTGAAAGGTTTTTGGTGTGACAGG
ATAAATTTAAATATGAACACACCAACGCATACTTCTTTTAAAGAAAGAACCTGATTAAAT
TTGGGAATTTTAAATAAAAAACAGGAAGCATATCGTACTCTAATAATAATTCAAGGGT
TTTTATTTTCTAGAAGATCAAGGTGATGTTAATAAAGGGAATATAGTTTTCTTATCTGT
GTTAAGACACTGATGACTTGCAAAGAAAAGTAACACTTTTGATATCCTTAGGTAATTC
AAGAGGAAACGCTTGAGCAATTACTGATGTTGTAAACTGGGATCAGAAGACATA

Sequence 218

NCCCGCGTCCGCCAGTTGCAAAGGAGATGTTGTAGGATGTTAGGTCTCAGCACAAAGGA
ACCCAAACCTTCAGGGGCTCTCCTCTACATTATGCTCCCATTTTTCTCCCAAAATATCGA
TCTCCACCCACCCTAGACATAGAAGTGGAGAATAAGTTCCAGTTTCATCCCTTTCAGAT
CTTAGGGGGACCCATCAAATTCAGCCACTGGGTGAAAAATCAGCAGCTTCTTTATAGGA
CCTGAGTTGCCTTCTAGAGGATCCTAGAGGAAAAAAAAAATCTTATCCTTCAAATACT
GCTGTCTTCCAAATACGTAAGGACGCCACGGTGAATCATAGTGGACACCCTGCATTGGT
TGGGTATTATTTATCCTAGAAGCTTGGGTCTTGGAGCCCTAGCTTATTTAAGCAACAA
AGTCCCTCACAGCCCACAGGTGAGGAAGTGAAGTGAACAAAGAGATCATTGGACCTAAAA
TCAAACACCTG

Sequence 219

CCCGAAAGGAGGTTTGTGGAAGTGGAGAGATCCAGGAGGTAACACCAAAAAGCTGCATT
TAGCAATGCCTGCCTAGCCCTCCTGTACAGCTCATGTTATTTTGTGCTTAGGCCATCT
TACACCAAACCATTCCTATCTCCATGCTTTTGTATGCTGTTGCCTCCTTTTAGAAGGG
CCACGCTCCACCGCTCTGCTGTGTTGATACTACCGACCCTTCTTTAGTTCCTGTTCAAT
TCCCAAGCCTTCTGCCAAGCCTTCTTGGACATTCCCATCCCATGCTGACTATTCCTAAG
CTAAAAACCTTAGAGTTAATATGATACTTGGCTACCTCATTGTTTCATATCAGTCAT
TCCTGTCTCTAGCTATAATCGGCTCAGCCAAGGAAGATATATTTATATGGACAATGTCTT
TGTGCCTTGGCTGTAAACAGTGTTGAATAATTAATCTCACTTGATGAGGTCTTACTTAAT
GATAGCCTCC

Sequence 220

CTCGTCCGGGCTGGATCCGTCTGCNCCACTGCAAGGGCAAGATGCAGCTGGTGGCTGACC
TGCTGCTGCTGTCGAGCGAGGCGCGGCCCGTGCTCTTCGAGGGCCCCGCTCCTCTGGTG
CCGGCGCCGAGTCTTCGAGCAGTGCCGGGACACCATCATCGCGCGACCAAGGGGGTTT
TCATCCTTACCCACGACGTGCAGAGCCAGCTCAACATGGGCCGCTTCGGGGAGGCGGGG

TABLE 1
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ACAGCCTGGTGGAGCTGGGCGACCTGGTGGTGTGCTGACCGAGTGCTCGGCCACGCGG
CCTATCTGGCCGCTGTGGCCACGCCGGGCGCCAGCCCGCGCAAGN

Sequence 221

GATTTTGGCTNCTGCAACCTCCGCCCTTAGGGGTTCAATGCAATTCTCCTGCCTCAGCCTC
CAGATTGGGATTACAGGCATGTGCCACCGTGTCTGGCTAATTTTCTTGTAATTTAGTAC
AAAAGGGGTTTACCACATGGGCCAGACTGGTCTCAAACCTCCTGGCCTAAAGCGGATCCA
CCTGCCTCGACCTCACAAGGTGCTGCGATTACAGGGATTACAGGCTGGGATTACAGGCAT
AAGTCACCACACCCAGCCTAAAAATTTAAAGTTTATACTGTATTGTTACATTGTGATGC
AACTTTCCATATGTATTTCCAGAATCAACTATGTATCAAGGAATATTGAAAGCATAAAAT
GAGATCATGGTGAATTCTCTCCATTGTCTCTTGNNGTAAGGGAATGAATGGTGG

Sequence 222

CNCGCGTCCGAGTTATTNATATAAAGAACATTTTCTGTTTTAGAGAGAACCCATTTATT
TGTGAAAGAAACAGAGTTTTGTTCTTATCCCTATAAACACTGCATTTGCTGTTTCTTCTC
TAGCTGATGTGACATATTAGGGAAGCAGCACCCGACTGGGACTCAAAGACCTGGGTTTG
GAACTTTTTGATTACTAGCTTAGCTGTGTGAAATCAGGCAGATGGTATAACTTCTCTCA
TTGATGATGTCAATCTTTTTAAAAATTTCTAGCAGTGAAATTTAAAAATGAAATGTT
AGGTGAAACCTCAAACCTACAACAGTGGTAAATTTGGAAGGGTCTGGATGGAGTGAGGG
CAGGGAGGGGGTAACTGGGCTGAGGGGCCCTCTTCAGCCTCTTCTCCCTTCAACCGA
AGTCTGAAATCTCTGGCTAATATGGGTGGATCCCTAAGATTTCTTTGTACTTTAACA
TACCGAAAAGNTATTCTAAAGAATTTGGTATGGTTTT

Sequence 223

CGCNTCCGCCGAGCGCAGCAGTCTCCCCCTAACCTCAAAGCCTCCTCAGAAGTAACCTG
GTATCAGTGGGCTGTGCAGATTCTTATAGTCTTCTTGCCTTTATATATGAAAATAACTT
TGTTTTATGTTTGTTTTACATAGGTGGAATTATACTGACTCTTACTCTGTGACTTGCTT
TCTTCACATGACAGTAACTCCTGGACTGTTTCTGTAGCAGCCACACAAGTCTCCTTTATA
TTGCCAATATCTATCTTTATCCCAAAGACAAGATGAATGTTCAAAAACGGTAATCCAAAC
TCACTTCTAAAAATGGGTGTGTGTTTAAAGAAGAGCTGCTCAGCTGAGGCAGTTTTGCTG
CCGAGGGGATTTGAGCAATGTCTGGGGACGTGTGGTTGTCACAACCTGTGAGGGGGGCTC

Sequence 224

GCNTCCGTCAATTTGCATCAGTTGCCTTAAAGAATGGGGTAGTTATAGGAAGCTCACAGA
GAGGAAAAAACTCTTCATGTCTACATTGCTTCTTGAAGTATTTTATTTATAAAGAAG
AATTGTTGAGCTAGTGATAGAAGTTTCATGAATCCCTGGTACTAATTATCAGTTAAATG
ACCTCTCTGAAGTCTCTGGAGAGCGTTCTGTGTCACTAATATTGGTGAAAATTTGAAACA
AAAATGCTCTCCCATTTGCCACATATTGCTTCTTTGAATTTGGTTTTTCGAGCCAAGAAC
TTAGGGTGTGAGAATATGTTTTGTGGGGAACCCACACAAATTTATGTTAGTCTCTGTAC
ATTTAAATTTTTACCTTCCTGATTACTTACGTAAAGACTAAACAATTTAAGTTTTCTAAAT
GCCATCACTTTTGCAAATAAAGGACTTTATTAAGNTGATAAATAACAATNATGGGCCAT
CAGCTCCACCTATAATTAATATCCTTGCCTGGCACCCCTGGAAGGGACTTAGCTTNTT

Sequence 225

CNTCCGCAATTACTGCCTTAGGCTAGATCCCATGAATANGAATTGCTGAGTCAAAGGT
TGACACATNTTTAAAGGTTAGATACATATTAGTCAAAGTTTTTAAGCAANATGCTTTCT
AAGCCTNTTTGATCTTTATAANNCATTGNTCCTTTCTAAAAATATATACTGTCTTCTGC
GTNCCAAGGATAATNTTTTTATTAATATGGGGCTTCTTGTGTCTACTTCTCCCTTTCTC
GTTATTTCTTCAAATGTTTAAACAACTAATACATTTCAGAACACATTATGCTTNCATCT
TGTCATATTTGCAGTACCTTGTATCTCCTGGACTTTATGCAATGCGTGTGTGTGCACAG
ATGGAATATGTTNCACCATTTGGCT

Sequence 226

GCAGTGCCGCGGGCGCAGTTGGGAATGGGAGTGCCTTGACAAGCGCCGACGAGCGATA
GCGACGCTATGCCCTCTCTTGGCCAGGCGCCGGGTGGCGCGGATCAACCTGCTCTCGCAG
CAGCCCCTGTGGTGGCCGCGGTGATGATGCAGGAATCGTATTTGACGGTGGNCAGCTT
CGCTTCGATCAACATCTTCGNCGAAGTCCGCGTGAACCGTNCGGNATCGACATCGTGG

TABLE 1
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CGCTGGCATCTGCCGCTATACCAATCATCGAAACCGCGCTGGAAGGTCGGGTCCAGCGCC
CTGCAGAAGAGACGCCTCCAGCAGGACAAGGTGGCCTGCTCGACGAGCAGGCTACCCGAG
TGTCGTTGAACAAGTATCGCCTTGGGTCT

Sequence 227

CTGACACCCAGTATTGCCAACCTAAGGACTAGGAAGAAAGGGCTTACATGTTTCTTGCTT
TAATAATATGTGAATTAGAAAAGGTATTCAAGAAGATACAGGGTTAGAATGTGCATCTTT
CTTTTATGTAAGTAAATGTTTCAACTCATATGCAGCAATGTGGTNACCTTGAAAGATGAT
TCCAGAGATTTTCATGCTTCTGGCAGTTTCAGGTCACATTGGGGTGAAATTTGACATACTG
TAGTCATCCCCAAGGTAATAATGTTGATGAAATGGTATAAACCCCTGATACATTCTTAAGC
AAAATGAATCTAAAAGTTTGTTCAAAATTTTAAACGTTTTATGTTGCTCTGACTTTCCA
TATACTGATTTTACATTACTTAGTGAAAAAAAATTACCTTTTAGCTTNTGGCAACA
AAAACATTTTTGGCTATT

Sequence 228

CCNCGCGTCCGCAAGACAGGAGATTTCTTAAGGTCATATATGCACGATTTGCTTAAACGT
CATATAGCATAACTGGAAGAATATAGAATCTACCCAAAGCCTATGCTCTTTCTACTGNAT
TATTTGCTTATAATAGAGAATGCTAATCAGAATCACCTGAATAGTCTTGAGAGGGTCAG
TACACAAGCCTAGGTCCTATCCTTCAGAGAGGTGAAATGGAGGCAAATATATTCTGAAAG
AGTTTCCCAGTTGATTCTGATGAGCACTCACAATTAAGAAGTGCTGCATTAAGAGCTGTA
CATGGTGGCTTATGCCTGTAATCCCAGCTATTCTGAGGCTGAGGCTGGAAGATCACTTG
AGCCTGGAAGATCACTTGAGCCTGGGAGTTGGAGACCAGCCTCGGCAACGTAGTGAGACC
ATGCTTTTTTTT

Sequence 229

TTGGGAGATATGGCANGGTGAGAATGTTTGGGAAAGGAAGTAGAGACAGACATTGGATTT
TTGTCAGTCAANTTTCTTTGATTTTAAATTATTTATTCATTACATTGTCTACATGGCAG
TTAATATTCTAAAACATAAAACAAAATTTAATATAGAAAAAATATTATGCTTTTCTTTT
TGCCTTTGCATGCTCTTATTTCAAATAGATTTAAATTCATGGCATATTATACTAGAAA
ACAAGTCTGTCAATGATCTAAGCTTCTATCTTTAGATACTAGGAAAAAAGAGAAAAACCC
AAAGCAAGCAGAAGCAAGGAAATAAGAACAGAAATAAATGGAATTGANAAGAACTTCA
GAAAATCAGTCAAACCTGAAGCTGATTTTTATAAAGATTA

Sequence 230

CCACGCNTCCGAGGAAACTGGCAGGGAACAAAGTATCCCTGGAAGGAATTTCTTAAAGA
GGAAGAGGCAGATCCCTACAAGTTTAAATCAAAGAATTTGAAGATGTTGATCCCAAAGT
GAAATTGAAAGATGGACTTGTGAGGAAGGAGAAAGAGAAGCATAAAGATAAGAAGAAAGA
TAGAGAGAAAGGCAAGAAAGATAAAGATAAGAGAGAGAAAGAAAAAGTGANAGATAAAGG
CAGAGAAGATAAGATGAAAGCCCCAGCACCCCCACTGGTGTTGCCCCAAAAGAGTTGGC
CCTGCCCTTGTTCAGCCCTGCCACAGCCTCCAGGGTCCAGCCATGCTGCCATCTTTGTT
GCCAGTGCTTCCGGAACAACTGTTTGAGGAGAAAGAGAAGCCGAAGGAGAAAG

Sequence 231

NCTAGACTCCCCTCTCGTATCATGGATCCCAACATCNAGGNATATGGNCATTTACGTGTT
GGGATCTGCTCTGCCATTGNACACAGCTATATTCNATTGCCCGGGNGTTGTGTATNTT
CCAAAAACGTTGAAAGGGAGGTTCAGAAGTATNCAGTTATTNGTATTATTAGTCGTTTTG
AACTGAGTNGAAAGACTCATTNANGAAAGNTCCATATGCCTTCTTGTCTGTCTATGGCT
GGNNTGCTCNNGAGAAAAGTCCNCANTTATACAATTGTA

Sequence 232

TTTCCTTTTTTTGGGGGCGGGGTGCGGCTCTGTGCGCCAGGCTGGGGTGACAGGTGGCGCG
ATCATGGCTCATTGCATCCTCAAATGCCTGGGCTCAAGCAAACATCAGTTTTCTTATCTG
TGAAATGAGGATAAAAATGTCTCCACTTAAGGGTTGTTGCAAGGAAGGTGTTGCCTTAGT
CATAAAAGCTAGGGAAGGTGTTCCCTAACGAAAAACAATTCGTCAGAGACATGAAGGTAGA
GGAAGAATTCACACATGAAGGGGGCTGGGGAAAATGATTTAAGAAAAGAAACAGGCCTGG
CGCAGTTGCTCAGGCTTGTGATCCCAGCACTTTGGGAGGCTGAGGAGGGTGGGATCACCT
GAGGTCGGGGAGTTCTAGACCAGCCTGGCCAACCGTGGTGAAACCTTGTCTTCTACTAAA

TABLE 1
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AATACAAAAANATTGGCGGGGTGTGGTGGCAGGTGCCTGTATTCCCAGCTACTTTGGAGG
CTGGGACGGGATAATTNCTTGAGCCCCGGAGGCGGGGGTTTCCGGTGAGCCCCGGGATTGC
GCCCCCTTGACTACAAGCCTGGGGCACANAAGCGAGGACTNTGTCAAAAAAAAAA

Sequence 233

CCACGCNTCCGGTCTCAAATCNCCTCAAGTATATTCAAAATTTGACCACTTCTCACCAGC
ACCACTGTCAATTATCCTGATTCAAGCCTCCATCATCTCTCATCGTTACTGTGACCTCCTG
ATCATTCTCCTTGCTTCAGCCCTGGCCCTGCAGGCAGCATTAGTATTAAAGCAGTAGAG
TTGTTTCTATAAAAATGTAGTCAGCTGGGTGTGGTGTCTCACGCTGTAATCCCAGCACTT
TGGGAGGCCAAGGTGGGAGGATCACTTGAGCTCAGTTTGAAGACCAGCCTGGTCAACATG
GTGAAACCCTGTCTCTACTAAAAATACAAAAATTAAGTGGGCATGGTGGCGGGCACCTGT
AATCCCAGTTACTGGGGAGGCTGAGGCAGGAGAATCGCTTGAACCCAGGAGGCAAAGGCT
TGCAGTGAACCCAGATCACACTACTGNTTTTNCACCTGGGCACAGAGTGAGACTGCCTC
AAAAAAAAAAAAAAAAAAAA

Sequence 234

TCGAGGTCAAGGACGGTTATGGCCCGTAACCTGCTGCCGCAGAATTACGCCATCAAG
TGGACGCGCGGTGCTGAGGCCAGATCAAGGACATCACTCGCGCCCGTAAGGCTAAGGAG
ATCAAGTCCAAGGAGGAGGCTGAGCAGATCCGCTCGCAGCTGGAGCACCTGGTCTGCCAG
GTGACTGTCCAGGTGGCGGAGAACGGTCTGTCTGTTTGGGGCCGTGACTCCTGGCGATATT
GCGCTGGCAGTCAGGAAGGCCGGTGGCCCCGCCCTCGAGAAGCGGTCCATCGAGATCACC
AAGCCGATCAAGACCATCGGCAAGCACACTGTCCGGCGTCAAGCTGCATGACGCTATTAA
GGGTACGTCACGGTCGAGACTGTTCCCGCCGCGTTGATTTGACGTACACGCAGANTAGG
GGGAGGGGGCATCCAACCTGGGTGCCCTTCTTTTCTTNCGTCAACACCGGCGAAAGGTAA
ATGACCGAAAGTAATTCTTATTACNGTGCTTAGGGGGGTTTCGCCGCGCCGGGCGGTTAG
ACTTAGTCTAGAAGAAAAACCTTCCACACCTTCCCTTGAACCTGGAAACATTTAAATG
AATGCNATTGGTGGGGTGGTAACTTGG

Sequence 235

GNGGTAGCTTTGTGTATGTCCGGCACTTCNAGGAATAGGGTGCAGGAGAAACGTCTCAGT
GTCTCCCCTTCCGAATCTTGCTTCTGGAGGGAGAGATGCTGGGGTGGGAGTGCTCCTTG
GTGGAGTACTCAGGAGCTTAGTAAAGCAGAGGGGGCTGGAGAGGCAGGCCTGGCCTGCA
GAGCCAGACTGGAGAAGCCTGGTGTAGGGCTCTCCAGCCTGCCAATTTACAGTTAAGAAG
AAAGGAGATATGTATATATATATACACACACATACATACATACACACACACATACATA
TATACACACATATATACACACATGTATACATATATATACACACACATACACATATACA
CACACATGTACACATATACACACATATACGTGGGGTGTGTATATGTATATATGTGTAT
ACGTATATA

Sequence 236

AACTGTCTAATCTCTTGACCTCGTGATCCCCTGCCTCGGCCTCCCAAAGTGCTGGGATTG
CAGGCATGAGCCACTGTGCCAGCCATACTTTTTTTTTTTTCTGGNGCATTTCTGAAG
TTAAATATGTTGAGTTCTCTGCCATTTGTTCAAATCTATTGNATTATTTCTGNNGGAT
TGACAAATGTTATGAACAATTTGGTTTCAAATAGATTTTTCTATTTAGCAACTTTCTAT
TCCTCTAGGACCTAGTATTAAGGTCATTAAGATGGCTTAATGAGTCATTAAGCCATTAAT
GAGTCATTAAGATGGCTGACCAATCTGTGCCATCTTTTTAGTGACATTTTGTATCAG
TGTCTCTTTGTGTATTTCTTGATTTATATCTTGACAGTATTACATAAGCAGGAATAAA
AGAGACTTTGAGTGGGAATGTCTCGCTCAAATATAAATAACCTTATAAATACAATCTTTA
CTTCTCAGAGTCCTAAAATCTTCTTGTTAGTCTGGTCTTCTGGGTTGATTCAAGGTTT
TCGGNGACTAAATGGCAT

Sequence 237

TGTTNACCTTTGGGATTACACAATACTTGCAATCCAGCTCTGCCATGGGGGACATCATT
CACAAAGCACTCCTCACCAGTAGTCAGATGGCACTTGATAGCTACAGGCATGTGAATATT
CTTTTACTGTCAACTTTTGTGTGATTTACCTAAAATATGATAAGCTCCTTGAGGATAA
AGGCTAAGTCTTACTTCTTCTGATTTCTGGTAACCGCTTGTACCAAACACCTGCCAAGCA
TTGTTGATTGCACCTATGAGGAGGTGAGAAAGTGCCAGGCCGTCATGCCCTCTATACAA

TABLE 1
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ACATGTAACAGTAGACTCTGGTTCATCAAGGAGTAAATGACATGATATGTGATAGACCAC
ATACATTCGTGGCTATAGATAGGGTGAGTAACTGTAACCATATCCAATTGTGAGCAAAAA
GTGTTTAATTGGGNGGGTTTTAACTAATATAAAATTGGCTAAATCATCTTTTCAAGC
TCTCGAATCATCTGAAGACCTTTTTTTATTTTTTAANANTTAGGCC

Sequence 238

CGCTCCGTTGCAGTGAGCTGAGATCACGCCACTGCACTCCATCCTTGGTGACAGAGCANG
ACTCCATCTCAAAAAAAAAAAGAAATTGGGTTGTCTAGGCACAGTGGCTCGTGCCTGTAA
TCCCAGCATTTTGGGAGGCTNCNTAGAANAATCACTTGAGCCCAGGAGTTTGAGACCAGC
CTGNACAACATAGTGAGACCCCATCTGTACCAAAAAAAAAAACACCAGACCTGGTGGCAC
ATGTTTGTAGTCCCAGCTACTCAAGGGCTGAGGTGGGAGGGATCACTTGNNCCCAAGAAG
TCAAGGCTTCAGTGAGCCATGATTGGTGCCACTTGACTACAAGCTGGCAACAGANCCAAG
ACCTNTTTAAAAAAAAAAAAAAAAAATNGGNTTGGGTTATAGGNGAAGTTNCCTGG
AAAACCTTACAAAACAAGAACCATGTTTGGGGGAANCAANTGGANGGGGTNAAANTGNCC
NCTTGANGCTTNTCCTTTNGNGGNCCNTAATTA AAAANGTTTCCCGGTNTTGGCCNNGG
GNCCGGAAAATNCCTTNGAATTTCTTAGCCCTTTTGGGNGGGCAAAAGCCAGGGNGG
AATCCCNCCNNGGGNTCAGNGATTTTNGNAACCNNACCTTGCCAAAAATNGGGGAAAAACC
CCNGTTTTTTTTNTAAAAATAACNAAAAANTTTNCCCCCTTTNCTTTNGGGGGGGCCCA
CANNNNCCCCCTTTTTTNATANANAANAANAANCCCCCCCCCCCCCCCCCCCC

Sequence 239

CATCTCAAAAAAAAAACTCACAACATATTTTATGTACACCTAGTATCAGTGAGATTTTTTA
ATAATTAGATTTATTATCTTCCATATTGNNTACAAAACCTTTCTTCAACTTCATAAAAAGT
CAAGTAACATACTGTACTTACTTCTCTCACCTCATTTTAAATAGTGGATAAATTGTGAG
ACACAGTGACTCTGCACCTGTAATCCTAGCTACTTGGGAGGCTAAGGTGGGAGGATTGCA
TGAGGCCAAGAGTTCAAGACCAGCCTGAGCAACACATAGAGACCCTATCTCTTAAAAAA
AAAAAAAAAAAAAAAA

Sequence 240

TGTCGACCCACGCGTCCGCGCTCCTGTCATCTCCCTTGGGTCTTCATTTAAATGCCACAC
CAGAGAGGCCCTCCCTGGCCACCCTAATGAAAACCTTCAACATCCTCAACCCTAACATTTC
CTGTCCCTGGGTTATTCTCCTCCCCTTGGTATTTATCACCATTTAATGTACTATCTGGCCG
GGCATGGTGGCTCGTGCCTGTAATCCCAGCACTTTGGGAGGCCAGGCGGGCGGATCACC
TGAGGTTAGGAGTTTGAGACCAGCCTGGCCAACATGGTGAAAACCCCATCTCTACTAAAAA
TACAAAAATTAGCCAGGCATAGAGGCATGCCGCCTGTAATCCCAGCTACTTGGGAGGCTG
AGGCAGGAGAATCTCTTGAAACCGGGAGGCAGAGGTTGCAGTGAGCCAAGATCAAGCCAC
TGCACTCCAGCCTGGGTGACAGAGCAAGACTCTGTCTCAAAAAACAAAAACAAACAAACA
AACAAACAAACAAACAAAAAACCCAAACAAACCCACCAACATACCATATTTGGTTTCTG
TAAAAAATAAAAAAGAGAGAGAGAATTTTTAAAAAACAAAAACCATACTATCTAATTTA
CATTTTTAATCT

Sequence 241

CCCCGCGTCCGCTAAGGCATGTGAGCGCCTTGTAGGGCACGTTCTGTCTTCTGACTACAT
AAGCAACACTTTTGGCACCCTAAGTCACAGCACCCACAGCTTTTGGCAGGATACTTTAAA
ACAGAAAAACACATCATTGATCCTGGCAGGATTTTTTAAGGGATTGTGCTTAAGAATGT
TTAAGTTTGGTAATCAGAGACCACCACTGGTGTTTTTCTCCAAAATCACATCTTTAAGTT
AATTAATACTTGAAGTTAATAAATAATACTGCTCAAGTGTATTAGTAATGATGCCATAAT
ACCATGTGAATTTATGCTGATTCAAATGTTGTTTTTTTCGTTTGATACTCATATGGCCTT
CTGTTTTGAGGACTTCAGATTATTTAGCAACTGATTTAATCTGGTCAAGAAATAAACTTT
GCTTCAGCTGGAAAGCGTGAGGCTTGAGAAAAGCAAGGTTTTTGGACAGGGGACCTATGAA
GCTCATGTTGAACTTAAGTGTTTTAAGGCTGTATGGGAACCTTGAATGGGAGTGAAAAG
AACCAAGCCGTCTACTGNCAAGGTTTTTCCCTCCTCCCTCTAAAATTTATAAACCTCATT
CTTAGAAGTGGCAAAAAGTTGGGAACCTTTTCCACTGNTTCACTTCTNTTANTNAGGGGA
TTAAAGGNGGATNGGNAANGGAAGTTTTCNTGGTTTTTTAAAAAANNGNANAANGGG
GGGG

TABLE 1
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Sequence 242

GNCACGGCGGGGCAACCTGGTTCCTGCGGGTAGTCCCGGCAGCTGTGCTTCCCCCTT
CACTGCAGTGCGTGTTCAGTTGGAAACACGGAGATTTACCTTTACTCCCTGGCTATAGG
GGGATGGTGAGAANGGGGCTGCGTGTNAGGNGANATTCAAGGCATAAATCTTAGNTTGTG
TTTTAAAGAATTGNGTGCCGGGACGTGNTTGGAGGNTGGGTGCANANAGGAAGAGGCGAN
CTNCTGGAGGANGCAAAGGACAGGTCANTNTGCGNANTTCNGNNNGATGCTGCTGANTGA
ACCCCNNGTGTGTNGCCCCAACAAGAAAGGCTNNGCTNNGATCAAACATTTACTGNACC
TANAAGGCCACATTCTNGCTTAANNANNCCAGGAANGCNCNTTCTTGTTNCCCATTACCA
AAATCATTNACACTTGGTTTTTGGCCCNACATACCTTTCTTTTNGACCANNGTTCTGGN
NAAAANGGCANTANACCNNGNATNTNNCNTCATNACANGAATAAAAAGCCCNACAGAACN
CNACANANGNGCCCATCACTANNNNTANAGATNTCAAAAAGGGGGCCCNCGGATCCTTNACC
ANAGAANACTCTGGTCCNNAGNGNAAGAAAGNAAAACCCCNANANGCACTGGGACNNT
NTNATANTTCTNNTTNAACAAAANCTTATAANNNAAAAAAAAAAATTTTT

Sequence 243

AATTAATAAGCCTCCTGGGTGATTTGGCTGCAGGTGGTCCTGAGACCACACTTTAAGAAA
CACTAATCAAGAATCAAGGCCTTATGACTCTTAGTCCTGTTTCTTCCCAAAGGACTATGT
TGCCTCCCTACATTGAAAACATTCCAAACAATACATAAGAGTCTTTGTAATTCACATTA
GTGCTCGTATTTACTGACTCAACAATTAATTCCTGATTGAGTCATTGAGTAATTTT
CTTTTACTCACTCAGCCTCTGTGGTTTGCCAGGAGCTACAAATAAAAGATTAACACAG
TCACACCTCCAAGGAACATATAATAGTAACAGAAGTAAGTACCATTTCTTGAGCACTT
TATTTATACATACCGTCATACAGTTTATCTCATTACCTATCTCATTCCCTGCCTTTCAG
TAAGCCTGTATACTATTATAACCGCATAGTTTGGGAATATTTATATATATATATATA
TATATATATATATATATATATATATATATGTATAATCACATATATTCTCTCAACTGTNCT
TTACATTTAATATGTCTTAAAAGTATTTCTTTGTGAGTCTTGCTTTATATATGTCTAGT
ATTTCTTTATAAGGGCTACAAGAAGTATCCCTCAAGCATTGGATATTTCAATCAAATTAC
CCTTGGGGGGGTNGGGGGGAAAAAATNNGGGGGGGNTTT

Sequence 244

TCGCCCCGCGTCCGGGGAAGGCTAAGGCGCGAGGATCCCTTGAGCCCAGGAGTTCTAGGC
TGCAGTGAGCTATGATCACGCCACTGCACACCAGTATGGGCAACAGAGCGAGATCCCATC
TCTAAACAAATTTAAAAACAAACGAACAAATGAAAAATATTGCTGTCTTAAGGTTGGGAAG
GGGCAGAGACCCCTTTGCTTGCTCATCACCAAGACACTTCTGTGAGGCCCCAGGGCTCTT
TGGAGAACGTTTTGAAATCACGGTTCTAAGTAATTATAGTTACTGTGACTGAACTAATT
TAGCCCTAAGCTTCTACAATCAAGATAGAGATACACTATGGACTGCATTTCTCCGCTTC
AGATTAAAAAAAAAAAGTTAAGTCAGAATGTAGTTATATTTTCAGGTAAAATGCTCAAT
ACATTTTCAAGATGAAGCTGCTCAAAATTAAGCAGTGAGTCCAAGGGTTAATCTGNAAA
AAAAAGTACAATTTACTATCTCCTGGTTNCANACTTATAGACCCTCATAGGTGCATTGGC
TAATACAAGGGGCCACTAAACACATTGTGGCATTACNGGATTTTATTGGTGAAGNGCTC
TATAAGTTTTATTGGTGCCAGGTAAAAGAAANGCCTCNTATAAAAAAATGGTGGNGGGGG
GTTTTTTTTTNNCCCCCTTTTT

Sequence 245

TTCCGTACCTAAGAATTGTACCCTTTCATAACAGCACCACTTGGATATGTAGAAAGAGTT
TGTTGTGAGATCAGATGTAAACAAATAAAAGTTATTCGTGAAATGATATGGAAGACTGG
GATTAGAAACTGTGGCATTCAAGAAGCCAGTTAAGCTGTTCTCAGAATTGACAGAGATTG
TAGAGATGGTGTAGTGCAGATGGTGTAGTGCAGGGATTCTCAGCCTCACTGCACATGGTA
ATCTCATAGGAAAATTTTAAACAAGGACAGATGCAGAAATTTCTATTAACTGTCAGGACT
GAAGTCCAGAGGTCACTATATTTTAAAAAGGTCTGCAAGTGATTGTAACATGCATCTATG
GAGGAAAACATCANCCTAGGAGAAAAAGGGGAAAGAAACCAACTGGAGTAAAGGCTCTGTC
TTGAGCACTGTGCTGGCTCCTGTCATTCTCCATCTCTTTTTATCTTCATAGTAAGTGAGA
TGGGTTTGACAAATAGGGA

Sequence 246

CGGTCCGGNGTAACTTGAACNAAAGTATTCTCCTTCTTCTGTATATTTGTTCTCAACCCC

TABLE 1
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CAATTCCTCATAACTTTTCTAAGTAAGTAGGGTGAAAAGAAAGTCAGGGCTGCCTAGGGAA
GCTACATTTGCTTCTCAAGGCTTGACCTGCATATTTTCATGCCCCGACATGTTGCTGAACA
CAGCCGAGTAAAGTGCCAGAATAAAATCAGCTCTGTCCACGTGGTACCAGGAATGCTGCT
GAAATGAAGGTAAGTATAGGATTCCACAGGATCTAAGACAGTCCAGGGAAGTGGGACCAA
TTGTGGGAAACCTCAAAGCTGAGCATATTTGAAGAAAATGCAGAGTAAATGGCTATGGG
CTGCCGGGAGGCCTGGATTTGAGATACCAAGCACCCTGATATAAACACTGATGCTCAGA
AAAAGAAATGATGAGTGTGTATTTGTGTCCCTTGAGACCTAATTTAATTTATAATTATTC
ACCAGAGATAAGAGGCAAGGGATGTCTACTTGCTGGATATCTGAATTTACACAGTTCTCT
AGTCATTAGTATTTTTTACAAATATACCACTCAGACTAGGGGGGCAGAGGATCTGGGGTT
TNAATTTCAAGACCTGTCACCTATCTGCATGAATTTTGNAGCTTATAAGAACTTACAGGT
TAACCTTTTTT

Sequence 247

TGTCGACCCCGCGTCCNTNGTATTTATAAANATAATNCTGNTAGATAAATAAGTGATTCA
TATTTTGTCAAANCTATTTTAAATTTCAATATTTAAATATTNTTGAATCACTGGGTGT
CGNTAAGTGGCATCATNNATGAGATTTGATTCCATGTACCATATAATNTTAGATTGGTCC
TNTCTACCCCTTTTAAACTCCTTCAAGCATTGCTATTACTGGGGTTGCCTTTGGGAAAA
CTTACTTCTAGATACTACCATATATCTGAAATAGTAGAGGTGGATGTTAATAAAATTCAT
AAAATNATCATGTATTACTTTTTTTGATTTACCACTGGAAGGAAATACAGNCATGTGCAA
TATAATGACCGTTTTTGGTCATNGAGACCCACATGTGTGACAGTGGTCCCATAGGATGNG
GCTGAAAANNTCCTGTTGCNGCCTAGTGACACTGTAGCCATNGNAACNCCATAGCACGAC
ACGTNACTCACCTNTTCATGGTGATGCTGGTGT

Sequence 248

CCCCGCGTCCGATTTTGAATGTATTGAGACTAAAGTTCCTTTGAAACATTAAAGAAGATC
CATCAAACCTGGCAACTGTATATAAGGTCTGATATCTTCTGGCACTCAGAGGGAGAGTTTC
TGGTGGAGGTGGAAGTGACTTAGGAGTCATCCATGAACATAAATGAGATCACTCGTGTAG
GGAAGAGTTAATGAGATTAGAGAGCCTTGGACAGAGCCTTGCAGCCCAAACCCATGAAAG
AGCAGTAATAGTGAGTGAATTACCTTCTGAGGCAGTGCAAAGTAGATAAGAAAACAAAAAN
CTNNAAAAAAAAAAANAANAAAAAAAAA

Sequence 249

CCGCGTCCGCGAGTGGTNGTGATCTCGTCTCCTGCAACCTCTGCCTCCAGGTTCAAGCAA
TTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGATTACAGATTATGTCTTGTGTTANNGAAA
TCATTCAATTTTTTACCAGAGAATAAGGAAAAGCAAATTAGACTGTGAATAAAATCTCCA
TGTACCCACTAGGATGACTACAATTCAAAGGCTGACCTATCCAGGTGAAGATGAGAGTG
TGCAGCATTGGAATTTCTTACACATTGCTGGAGATTTAGAAGCTAAAGAAAGAGGACAAA
TGATTTGGAAGCAAAGATAAGAAGGAAGAAGGAGATGGGGTCTTGCCATGTTTCCAGGC
TGGTCTCAAACCTCCTAGATTCAAGTGATCCACCTGCGTTGGCCTCCCAAAGTGCTGGCAT
TATAGGCATGAGGCACCATGCCAGGCCTGTTTTGAAATTCATACATATTTATAAAACAT
ATTTTCAGGATGAGAGAATATACCAAGAAGTTACATAGCATTGTGTATCTGTATAGAATA
AAA

Sequence 250

TCGACCACGCGTCCGGGTGAACGTGGTCACCAAGGCCATGGGTACCCTGGGGGTGAGCTT
ATCCTCCTGCAGCGTCCCTGGTTCCAAACCCACCTTCGAGCTCTCAGCCGACGAGGTGGA
GCTGGGCCTGGGGATCCACGGGGAAGCTGGTGTGCGCCGGATAAAGATGGCAACCGCCGA
TGAGATTGTGAAACTCATGCTCGACCACATGACAAACACCACCAACGCGTCCCATGTGCC
TGTGCAGCCCGGCTCCTCAGTTGTGATGATGGTCAACAACCTGGGTGGCCTGTCAATTCCT
GGAACCTGGGCATCATAGCCGACGCTACCGTCCGNTCCCTGGAGGGCCGCGGGGTGAAGAT
TGCCCGTGCCCTGGTGGGCACCTTCATGTGAGCACTGGAGATGCCTGGCATTCTCTCAC
CCTCCTGCTGGTGGATGAGCCTCTCCTGAAACTGATAGATGCTTGAAACCACTGCAGCAG
CCTGGCCTAACGTGGCTTGAGTCTTACTTACTGGGCGGAAAGCGGAGCCGGGTAAGCCC
CTTGCCGAGCCCCAAGAAG

Sequence 251

TABLE 1
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GTGCCCCCGCTCCGCAAGAAATGATGTTAGTAAAGATACTTTAATTGCGGGGAGTTCTC
TGTTGGCTGGTGAATAAGGACGTTCTCTTTGAGTTCCACCTTTCTTTGAGAAATTTTCAT
GTTTCCTGTACTTTTCTCTATTATATCATGGAACTTACTAAATCAGCCTGTGCATTCC
GCCCACATATCCCTCATGGTGCCTTCCGGTCTAGCAGCTGAGCCAGGGCCATCAATAA
ATCTTCTTCTTTCCCAAGATATCCCTAGTTGCTTCTTTACTATTCTTGTAAAT
CCATTCATCTGTGTGTATCATTTAGGATGCTGGGCAGTTGCATCGCATTTCACCTAAGGT
CACATCCTGATGGGATTTGGTGGGATCCTAGAGCTGGCTAGGACCACTTGTGAGAGCTGA
TTGTTAAATTCTCCGAAATGACGTGACTCAAGTTGTTAGACTGCTTAAAGG

Sequence 252

CCGGTGAAACCTGGAGCTGAAGTGAATTCTCTTAGAGTATATTTTGAAGTGTACTAGGA
CTTTAAACACTTTTGAATTTAAACAGCCATAAAAATTTCTTGTATACTGAAGGAGTTC
CTGAGGCAGTGTGCCTCTCATTTTACCACCTAAAGTTGCCATAGAGGTCCAAGGAGACAC
TGCTGATAGCAGAAAGTCTTCCAGAAAGAAATTAGGCGACCCACACCAAGCATGTATGGC
TTTGAAGTCTTACAGATGGCTTTTTAATAGTTTAGTCTCTTAACCTAAGGAAGTTTCTGAA
GTTCCGGTCAGAGAGTCTAAAAATTCACATTTTACCTAATAAATGATAATGAGGCTATTT
ATCTTGTCTGTCTGGATTTTTCACCTTGACATTTAATGAAATATCCCATATTACCTATAA
TTTTTATTTGAAG

Sequence 253

CCCCCGCGCTCCGAGATAATGCTGTTTGCTTCCGGCCGCTGTAAATCATAGGTGAAAACC
AGTAGCANGTGCTCACTCAGTGCCTCCCAGAAGCGGTCTGCGGGTCTCAGCTGGGCTGGG
GGCAGTTTTTCATTGGGCAAGGCTTGGGCTTAGCTTGAAGCANGGGCTGGGAGAGGATGG
ATGGGGGTGTGAGAGCAAAAGAAAGACCTGGCTTTCAGTGATGGCANCCACGTTCAAA
TNNNAGCTCACCACTGACCNGTCGNNTGACGNGCGCCAGGNGTTAGGAGACTGNAACTGN
TTNTGNGTNNNGNNTCCGGNCGTNCATNNNNNCTGCTCAGCATACANANCCTNTTNCNTA
TCNTAATCCTCATACNCATGNCTGNNNACTNTACACTGTTCTACTTATCAATGACAGGTC
AAAAGTGTTATCATNTGTGACNTAGAATGAGTGAAGTACACNCCCTCTTGAAACTATGA
ATGACTTAAAGAATCACCNNTTGCAAAAATC

Sequence 254

GCCTTCGCCCCCTGCCTCCTCTTGGCTGCGGCTGGTCATCTTCCACCTCCACAGTGGGCC
GAGCTGCCAAACAAGGGGTACACATGTGCCCCCTGACATAGGCCAGGTGGTCTCTGCCCT
CTGTAGCTCCCATGAGAGAGGGCTCCTCGGACCGAAACAGGAGGCCACTGCCCTTGCACA
CACACCGTGGCCGGGTCTCCTGGGCGGAGCGCTTTCCGTGTGTGGGAAAGTCAAGGGCA
GCCCCGAGCCTCGAAGCCCAGGCTCCAGCCCCGCGCCATGTTGCATTCCCGCCTCTACT
CCTTGGTAGGCTGGNTGCTTTGAGTGGTTCTTTTTAATTCCTTCTGTTGGTTTCTCCTTT
TCCTTTGCCTGGGTTTTGCTTTAACCTCTCTGTTGCAGAGATGCAGAGCACTCAGAGAGC
CTATTTCTATCATCGCTTTTCTATTCTCCACCTAGAACCAGNTGACTGGCCGCCCGAGTG
GNGTCTCTTGTGTGTGTGGTGCCGTCAAAGCTGTGCAAAGAAATGCTTCTGCCTAGGTTT
CTTCGCGCCCCCCCCCTTGTGGCTTTTCTGCCTGCTTACACCCCCGGTTCCTGATCTG
CCCTGGGC

Sequence 255

GCCCACGCGTCCGCAAGANAGCTCCTCAGATTTGTCATAGACTATATTTAAAGAAAGGCC
ACATTTTCTTATTTAAATGCATTAAACAATGCANCCAATTAAGAACTGAGNTGGAT
TTGTACAAAAGCAGGGACTAGGTCTGNTTTGTCACTGCTATATTTCCAATGCCTAGAAC
CATGTCTGGCAAACATACTGGCATGGGAAGAACATTTCCATAACCCCTGAATGTTCTGTG
CCCCTTTCCAATTAATCCCTACCCTCAGAAGCAACCACTATTCTCATGCTTATTACATTA
GTTTTGCCTCTTCTTGACTTTCATATAAATGAAATCATACATCTAANAAAAAANANAAAA
AAAA

Sequence 256

TCGACCCCGCGTCCGATTTGATATAAATAGTTATGTTACTCATATAGAAATCTCTTCCCC
ATTACACACATACAAACATTTATCTATGAGTGGCTTATAATTGCAAATAAGATGTAAATC
ATGCTCATGATCATTGTCAAAATTGTGAAAGATTTTTTTCTATACCTCTTTAGGTTTGT

TABLE 1
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TTTGTTTTGTGTTTTGATTTCAGGTGGCATTAAAGACAAGAGGGAATAATATTCATTCT
TACTTCTACTCCCAAGTCACTAGTTTGTCTGAATTTAATTGAGTTAAAGAATTGTATCAGT
CTTCTTGGAAGTCTAATACAAAACCAAGTTCACACTAGTTATTCACTTCTTTGCTAATTCA
CCAGAATTGAAGGATGGATAAAATGAGAAAGAGAAGTAGTTCTTCATATTATTAATAA
AGAGTTAAATTAGACACTTTGTTGGACTCTTTGGTCTTAATAATTCTACTCTTTTGTAG
GTCCAAAAGTTTTGTCTTTGATAAATATAATTTAATGGG

Sequence 257

AAGTTGGGAAAATAATTCATGTGAACTAGACAAGTGTGTTAAGAGTGATAAGTAAAATGC
ACGTGGAGACAAGTGCATCCCCAGATCTCAGGGACCTCCCCCTGCCTGTACCTGGGGAG
TGAGAGGACAGGATAGTGCATGTTCTTTGTCTCTGAATTTTAGTTATATGTGCTGTAAT
GTTGCTCTGAGGAAGCCCCCTGGAAAGTCTATCCCAACATATCCACATCTTATATCCACA
AATTAAGCTGTAGTATGTACCCTAAGACGCTGCTAATTGACTGCCACTTCGCAACTCAGG
GGCGGCTGCATTTTAGTAATGGGTCAAATGATTCACCTTTTATGATGCTTCCAAAGGTGC
CTTGGCTTCTCTTCCCAACTGACAAATGCCAAAGTTGAGAAAAATGATCATAATTTTAGC
ATAAACAGAGCAGTCGGCGACACCGATTTTATAAATAAACTGAGCACCTTCTTTTAAAC
AAACAAATGCGGGTTTATTTCTCAGATGATGTTTCATCCCGTGAATGGTCCAGGGAAGGAC
CTTTCACCTTGACTATATGGCATTATGTCATCACAAGCTCTGAGGCTTCTTCTT

Sequence 258

GAGTCGACCCCGCGTCCGCTCTGGAGGAAGCATAGATTAGAATCATGATTTTTATCTATT
TTAAGAGAATAGAAGAACAGAAGGGGTACAATCTTGCAATATTATGCAACTCTTCTGCT
CTAATATATCAAAAACCTTGATGATCCAAGATCATGCAGAACAGCTGAGAAGAAATCAAAG
TAAACAGTGTACCTTGACGCCAACAGATCCTGCCAATATGAGATTAGAAGCTCTCCATCCT
AGCAAAAAAAAAAAAAAAAAA

Sequence 259

CTGGTACCTGCGAGTCGCTGCAGCAGCTGTGGCAATTGTCACCTTCATCCAGGCCCATCC
CGCTTTGAGGGCTAGAGAGAGTGGGCCAGAGGTTAACCCCGATTCTGCCTCCCCA
CGCTGGGCATCTGGGTGTGCCAGGGCATTCCCCCGCTGGTCAGACAGGTTTTTGGCCAG
GGCGGGGCTGACCAGGGTTAATTAGAGGGAAGTGGCTAGGAGGAGCTGGGGAGGGGGCTG
GGCAGAGTCCAGGCCTNCAGAGCCCTGGGACACAGCAGGTGTGTGCTGCCATGGGCCGG
GGCTTGAAGTCTGCCAGACTCAGGCGCCAAAAACGGCGCTTGCGACCTCAGGTCCAGAAG
CCCCGGCAGCAAGCTG

Sequence 260

TCGACCCCGCGTCCGAAACTCTGTCTAGTCTAAACTATTATTCTATACTTCTCATCTCTA
TATGTTAAGGATTGATCTCCAAGATAAATTGTTTTTGTGTTTTAGGGACAGGATC
ATGCTCTGTTGCCAGGCTAGAGTGTAGTGGAACAATCATAACTCACTGCAGCCTCGAAC
TCCTGGGCTTAGGTGATCCACCTGCCTTGGCCTCCTGAGTAGCTGGAATTCCAGATGCAA
GGCACCATGCCTGGCTAACTTTTTAAATTTTTCATAGAGATGGGGTCTTACCATCCTGC
CCAGGCTGGCCTCGAGCTCTTACCTCAAGCAGTCCTCCTGCCTCAGCCTCCCAAGGCAC
TGGTATTGCAGGAGTGAGCCACCACGCCAGCCCAAAATAATTNTTTTTAAAGCAAGAT
GTAGAAAAGTGATTATAATATGTTTCCATTTAGGCAAGAAAAAATGGAGAGGACTATA
CCTGTACTCTCTGNACATAGGATCCACAGAAAACCTTCTAATGGATGGTTATCCCTGNGGN
GGGAAACTGGGGGACAGGGAATGATGAAGCAGGAAAAATTTTACTGGATAAACTTTAGTT
CTGGTGGCTCTTTTTCTTCTATCATGNGNATGGTAACTT

Sequence 261

GTCCCGCAAAGCCTTTAAAAAGAGTCCGAATTTCACTTTTACCTTTTGTAGATGTGCAC
GTGTAGCTGTAGAGCTCATACTTACGTTTACATGGCATAGTTGATGGATATGTAGGTGT
AAAGTTTATGGTAGTGACAGGCTGAGAATGGTGTATCTGTGACAAAAATCTGATGGAA
GTGATATATTTGATATGAAAGTGAACATTTCTTAGTTGGGTGTTTATAACTTTTTTTG
GTAATTTGTTTGTAGTTTTATCCTTATTTTACTTATGCTTGGCAATAGATGGTCTTTTT
TCCCCAAATCTTCTTCTGAATTCGAAGGAAACACTGTTTTAGCATTTATTTGATTACTTT
GGTTCATTCTTTCTCCACTCCCATTTATTTGTTTTCCATTTTGTAACTTCTATAAAGCA

TABLE 1
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GATAAAAATCTGGAACCTCTAGATCTGACCTTCATGCCTTGCTTTTCTATGGTACTTAT
TCTTTCTGTCTCCTTCTCATTTTGGATTGGGCTTATGAGAGAAATCTTGGGGTTGATCTT
CCAGCTCACTAATTTGATATTCATTTGTGTCTCTTCAGTTACTTAGCTTGCCTGAAAACCT
TTTTTTTTCAGCAATTGTGTACTTAATTTTCATA

Sequence 262

CCNCGCGTCCGTGCCCTGGGGCCCCCCTGGGCGAGCATACCCTAGGCGTCAGGCCTGGAG
GTCTCCTCGGTGCCTCCAGCTCTTCTGTGCTCCTCACACTCTGCTCTGNNGCANATTGGC
TGTATTTGTAGGTTACTGCCTTTATTTCTCACATTTCTTTTTGGTGAGAGTATATCAAT
CAATCAATCATCCTCAGACCTCTATGATAACACTGTGCCCCACACACAAGAAGCTACTCA
ATTAATGTTTGTGTTGTTGAAATGAGAGAAAATATTTGTCCTTAGTACAGAAAGAAGATGA
AGCCAACCTCTGATAGAAGCCACCCATAGACTAGGGTGTTGAGCTGCCTTCCAA

Sequence 263

NCCCCGCGTCCGGTAGTTGCAGAAGCATGTTCTTGAACCTATCAGTCCTGACCTCAGATT
TCATCTTCTTCTGGTAGATGTAGCATACATCTCTGAGTGTTATTAGAGGACCAGNCTAGA
GCCTCATCGTACTCCTTCAGTTACTTCATAATCATCCAGCTCTTTATATTAATGTTTTT
CTGTTTAAATGGCAGCAATGTTTTTTATTTTTTGAATGGTCCCTGACAGCAACAGATC
TTCTCGTGTTTAATTATTGAGTCTGTGCTGATTACACAGAATTAAGGATATAGTTTCTAA
AGTACTTCCATTTTTATATATTTTAGCATTATTCTGAAAGGCCTGGAAAAAACTATTTT
TTATTCGATTTGAAAGTGAAGTGACATAGGTGGGTCGCTATAGCAAGAAATTACCCTGTA
TTTTCCATCTCTATCATCACAGGCATCTCACAGAATTAGAAGTCGGACATTATTGATGG
ATATATTAGTCATGAATAATTAAATACATTAAATATAAAATGGGTCAGATACGGGCAGA
TTT

Sequence 264

CNCGCGTCCGGGAGAAAAAGAGTTTTATACCTAATTCTTNTGCAAGTGATTACATATTTTT
ATACCCAGGATGTTTCAGCAAGATGAACCTTTATTTTTTAGATGTATCTATGGNTTTTCCAC
CCATTTTATTAATTTTTAGAAATATAAAAGTGCCTTTAAATTTAGCTGGGTAAAGATAG
TAAGTTTTAGGCTGAGGCAGGAGAATTGCTTGAACCCAGGAGGCGGAGGTTGCAGTGAGC
CTAGATCGTGCCATTGTACTCCAGCCTGGGCAACAAGAGCGAAACTCAGTTTCAAAAAA
AAAAAAAAAAAAAAAAAAAA

Sequence 265

GATCCTCTAAGTNCCCCAATGATCNGAGAAGAAATATGAAAGGGAATTTTAAATATTTTG
AACTGAATGAAGATGAAAATGCCACAGATAAACTTTGCATGGGNGAGCTACATTAGTTA
GCTTAGAGGGAAATTTATATTTTAAATCTTATATTAGGAAATAAGTCTTACATAAATA
ATCTCAGCTTCCACCTAAGAAGTTCAAAATAAACCCACAGTAAGCNGAAGAAAGGAAATA
ATAAAGCTGAGAAAAAATCAATAAAGTTTAAAGAGAAAAATTAATAGATATCAATGGAAC
AAAAGTTGCCTTTTTTAAATATCAACAAAATTGATAGACCTTTAGCCAGAATGATCAA
AAAAAAAAAAAAAAAAAAAA

Sequence 266

CCCGCGTCCGCCTGAATTCAGAGTCNGTTGAGAAGGTAGGGAGCAGGGATCTCTCAGAC
ACCAACATGTTTCAGCTTTATTATAGATAAGGCTGAATTGATTTCTGGAATNGACCTTAC
TTCCCACCTCCAACTGCAGGCCTTCCCCTTGCAAGTTTCAAGCATGTTAAGGTAAGTT
CACTGCAGAGATAAACAGGGTGAGGACAGGCCAGTCCTAAAAAAAAAAAAAGAAAAAAA
A

Sequence 267

CCGTTCTTTTTCCNAACTAAAGAATGCATAGGACATAAGTTAAAAGTTCATACATAACC
TGGCTTCAAATCCAGTTCTACCACTACCTGAAAACATCAGTTTATTTCTCATCAATGGGT
TGTTATAAGTACCTAGCATAGGGTATTGCTTAAATGTTAATACTCCCAATCCTGACACT
AATGTTTCAGGGAAGAGTGAAAGAAATCACATTAACCTCCACATTATTGAACATCTTCTGT
GTCAGGCTGAATACATCTTTGTATCCATTGTCTTCTGGTTGTTTAAAGACTAGTGTAGAA
GCCTGACATGTAAATCGGTGATTATATAAGATAGTACTGTCTTGTAAATGTGTTGTGCTAG
AGAGGTTAAGTATTAATTATTATGGGAGCTCAGGAGAGGCACCCACTGGCTGCTGGGAGA

TABLE 1
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AGAGCAAAAACCTATATATAAAGCAATTTTAAAGATTTTGGTTCTATAAGGGTAGAATGT
TCGATCCATTAGTGTATTCCCAAAGTCCTATACACATGTCAAGATCGGGAAAGCTCACAC
ACACAATAATGCCCAAG

Sequence 268

CGTCCGGCCCCATGCCAGCCAAGTTATGTTGTTTGGTCAATTTTAGATAATTA
AAAATCCTATGTAGTAACATCCTACTAGGAAAGAAGATAAACTCAANTATCCACTGAGTG
GTGACCTGAAACCAAAGAGACATGGAGGGGCGAGCCAGTCAAAAGCCACTGCACTCCAGCC
TGGGCAACAGAGCAGGACTGTGTCTGGAAAAAAAAAATCTAGAAACATACTCAAATGT
AACATAAGAAGCTTAGCATATGGTAAAGTTGTGACTGTGAGTCAGTGCAGAAAAAGATGA
ATCAATCAGTAAATGGTCCTGGGAAAACCGGCTATTTATTTTAAAATAATAACAAAATAT
GCTGTATATCATCAATGGATTAAAGATTTATATACCTTCAGCATATGTCCTTAAATGTTT
TAGAATAAAATATATATGAATTCATGTAATTTTGTATGTGAGGGAAGGCCTTTTAGACA
TGACACAAATGTCAAAAGCATAAAAGGAAAGATTTTGAATAAATAATAAAC

Sequence 269

GCGTCCGACAGATACACCATCATTATAGGTGGCCAAATCATTCAAATCGCTGTTTGCTTC
TTCTCGGGCTCTTATTCAAGCTCACGATGCTATTCTCATAGTGATTGCGAATCTCACTGC
ATAAAGGTGATTTTGAAGACATCACTTTTCTCCACACTAATGTGTGAGCTTAGCCAGAG
TAGGAGATATATCTTACTTAAAAAAAAAAAAAAAAAAAAA

Sequence 270

CCCTTTTTNCGGCCNTNCGGGCAGGTACGCGGGGAGGTCATGCCCGTGTGAGCCAGGAA
AGGGCTGTGTTTATGGGAAGCCAGTAACACTGTGGCCTACTATCTTCCGTGGTGCCAT
CTACATTTTGGGACTCGGGAATTATGAGGTAGAGGTGGAGGCGGAGCCGGATGTCAGAG
GTCCTGAAATAAGTCACCATGGGGGAAAAATGATCCGCCTGCTGTTGAAGCCCCCTTCTCA
TTCCGATCGCTTTTTGGCCTTGATGATTGAAAATAAGTCCTGTTGCACCAGATGCAAGA
TGCTGTTGCTGCACAGATCCTGTCACTGCTGCCATTGAAGTTTTTCCAATCATCGGCAT
TGGGATCATTGCATTGATATTAGCACTGGCCATTGG

Sequence 271

ACCGCGGNGGCTTCATGCAAGCTGTGGGCATGGNCAACGATCACGAAAATCATTNTTCCT
TTAAATAAAATACAATCCTATNNAAGGAGTNCCTTCATGAGCAACAATCAAATACGTGC
TTATGCTGCGATGCAAGCAGGTGAACAACCTGGTTCCTNATCAANTTGACGCAGGCGATT
ACAAGCCCATCAAGACGAAGTCAAAGTTGAATATTGTGGATTATGTCATTGAGATATTTT
AAGTGATTAATAATGATTGGCCGATCATCTACTTATCCTGTAGNCGCAGGTCATGAAATC
ATTGGAACCATCACTGCTCTTTGGTTCATGAAGCGAAAGGACTCAAAG

Sequence 272

CCCTTAGCGTGGTGC GCGGCCGAGGTACACCAAGACCAATTGCTAAAATCTTGGATTATGG
AAAATTTAAGTATGAAAGAAAGAAAAACAAAANGTTGAAAAAGAAAAACAATCTTTAC
AAACAATAGAGAAATTCGTTTATCTTTTGAATCAATTTAAATGATATAAAAATCAAAGC
AAAAAAGCCAAAGAATTTTATTAGATAACCGACAGAGTAAAGTGGCTCTTCGTCTTA
GAGGGCGTGAAAATACAAGACCTGAACAAGGTAAATTAATTTTAAATCTTTTTTTGATG
AAGNAAAATCGATTGCAAAATTAAGTAAAGAANNGCAATCAGTTTGGTAATTTTTTAAC
TCTTCATATTGAACGTGATAAGAAAAAATTACCCAAATTTACTTCTTCAAAACAAATAAA
GGAATTAATTGATTTTGAAAAAACTATTNAAGGAAGGAAGAACTAATGCCTAANGCCAA
AAACAAAATCGCACTTTAAAAAAA

Sequence 273

CCCTTAGCGTGGTCNCGGCCTTTGTACGAAATTATGACTGTTTTAGCTNCAGGAACAGAT
TTAAAAGTAATTGAAGACGTTTTAAATCTGTTTTTGATGCTAAGAACATCGAAAAATT
GAAAAACTTGAAAGAACAGAGTTAGCATACGAAATTAACAAACACAAACAAGGAATTTT
GTTTTAGCTAACTTAAATCTGAGGAAAGTTTAAATCGAAGAATTTGTCAGAAGAGTAAAT
ATTCTCAAAAAACAAGTTTTAAGATTTTTAGTTATTAATCTAGATTCTGAAAGAGGAATG
CACAAAACCTTCAGACCTAGAAAAAATGATAAACACAAATTTTTCTCTTCAAAAAACCA
ACANCTTCAACAGAAGAAGGTAAAAGTTTTCAAAAACCATTTGTCAAAAAACCTTTTGT

TABLE 1
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AAAAAATCAGAAGAAACAGATTCTTCAAAACAAAATGANCAAGACAAAGTGCTAAGAAAA
CCAAAAACTGTAAAAACCAGCAAAAGATCCTAAAGTAGCTCACACAGCAAAAAAAAAAAAA
NAAAAAGTCCTGC

Sequence 274

CCCTTAGCGTGGTCGCGGCCGAGGTACNAAATTATGACTGTTTTAGCTCCAGGAACAGAT
TTAAAAGTAATTGAAGACGTTTTAAATCTGTTTTGATGCTAAGAACATCGAAAAAATT
GAAAAACTTGAAAGAACAGAGTTAGCATACNAAATTAAAAACACAAACAAGGAATTTTT
GTTTTAGCTAACTTAAATCTGAGGAAAGTTAATCGAAGAATTTGTCAGAAGAGTAAAT
ATTCTCAAAAAACAAGTTTTAAGATTTTTAGTTATTAATCTAGATTCTGAAAGAGGAATG
CACAAAACCTTTCAGACCTAGAAAAATGATAACACAAATTTTTCTTTCTAAAAACCA
ACAACCTTCAACAGAAGAAGGTAAAGTTTTCAAAAACCATTTGTCAAAAACCTTTTGT
AAAAAATCAGAAGAAACAGATTCTTCAAAACAAAATGAACAAGGACAAAGTGCTAAGAAA
ACCCAAAAACTGTAAACCAGCAAAAGATTCTA

Sequence 275

CCCTTAGCGTGGTCGCGGCCGAGGTANTTNCCTGANCAGTCGAAGTGGATGCCAGACCA
ATGGCCAGTGCTAATATCAATGCAATGATCCCAATGACGATGATTGAAAAAACTTCAAT
GGCAGCAGTGACAGGATCTGTGCAGCAACAGCATCTGCATCTGGTGCAACAGGACTTATT
TTCAATCATCAAGGCCAAAAAGCGATCGGAATGAGAAGGGGGCTTCAACAGCAGGCGGA
TCATTTTCCCCCATGGTGACTATTTTCAGGACCTCTGACATCCGGCTCCGCCTCCACCTCT
ACCTCATAATTCCCAGTCCCAAAAATGTAGATGGCACCACGGAAGAGATAGTAGGCCAC
AAGTGTTACTGGCTTCCCATAAACACAAGCCCTTTCCT

Sequence 276

CCCTTTGAGCGNCCGCCCGGGCAGGTACGCGGGGAAATGCAAAAAATCAAATCAATTT
AATAGAATACATCAGAGATGTTAAAGATTTCCCAATTGAAGGGATTGTATTTAAAGATAT
TTCACCACTTTTAGCAAATGGAGAAGTGCTAAATTACACAATTAATCAAATGGCTGAGTT
AGCTAAAGATGCAGATGTTATTATAGGTCCAGACGCAAGAGGTTTCTTGTTGGGACACC
TACTGCAGCTTTTTAAAAAACCTTTTATTATGGTAAGAAAAACCTAAAAAATTACCAGG
AGACGTTATTAGTTTTGAGTATGATTTAGAATATGGTAAATCAACTCTAGAAATCCAAAC
TAATATGTTGAAAAAGGCCAAAAAGTAGCAATTATTGATGATGTTTTAGCTACTGGCGG
AACAATGAAAGCGATTATTAACCTAATCGAATCTCAAGGTGCTGGTTGNTCATAAAGTAA
TCTTTTACTTGAATTANGATTTTTAAACCGGAATTGAAAACTTAAAA

Sequence 277

CCCTTTGAGCGGCCGCCCGGGCAGGTNCTTCTAANGTTAAATCCTGAGGTAAGTCAACC
AAACAGGATGTGAATATCCTAATAATAATTCTAAAGTCTTATCTTTAATGTTGCTCTG
TAACCAACACCTTTGATTTCTAATTCTTTAGAAAATCCTTTANAAACTCCGGTTAACATA
CCTTGTAATGATGAATTTGTAGTTCGNGTAATTGNTTAATATTTTTTTCTTCTGATGTT
CTTTTAGTAAGTAGAGTGTTTTCAACTTTTTCAATTGAAATAAATGATGAAAATTCTCTT
GATAATGTTCTAATTTACCTTTTATAGNTACTNAAGAATTGTTAATGTTTACTTCAACA
CCTTCTGNTATTTGTAACACAGATTTCCGACACGAGACAATATTAATTATCAAATGTAA
GCAATGGATTTACACACCTACATTTTCCCTTTCTTGCTTGTATAATTAGGTTNAATAA
ATCCTTT

Sequence 278

CCCTTAGCGTGGTCGCGGCCGAGGTACAAGATAGTNNTCTCAGTAAAGGTCTATTATCT
AAGTTGCCAACTTGTTTACTGAGAGCCCTAAGGAACTAAACTGCCATAATGCCGTGCA
CAGCTTGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTCTCCCTTCCAGTTCCTCAGC
AGGCCTGGCTGAAGGCCCGAGGAGGGAAGGAAATATAAGANCCAACAATAAAAAATAGCACT
AGCAATAANAAGAATGCCATCCCATGGAGCACACCATAAT

Sequence 279

CCGAGGTAATAACTCTNTTTAATGNNCTAACGTCAATTTTTTAAAGTTTTTCAATTCCG
TTTAAAAATCCTAATTCAGTAAAAAGATTACTTTATGAACAACAGCACCTTGAGATTG
ATTAAGTTAATAATCGCTTTCATTGTTCCGCCAGTAGCTAAACATCATCAATAATTGCT

TABLE 1
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ACTTTTTGGCCNTTTTCAACATATTAAGTTNGGATTTCTAAGAGTTGATTTACCATATT
CTAAATCATACTCAAACTAATAACGTCTCCTGGGTAATTTTTAGGGTTTNCCTACCAT
AAATAAAAAGGGGTTTTTTAAAAAAGCTGGCAGTAAGGGTGTCCCAAACAAAGAAAA
CCCTCTTGCGGTCTTGGGACCTATAATAACAATCTGCATCTTTAAGCTAAACTCAAGCCA
TTTGGGATTAATTGGTGTAATTTAAGCACTTTCTCCATTTGGCTAAAAAGTGGGGNGAA
AATATCTTTAAAAATACAATCCCTTCAATTGGGGAAAAATCTTTAACATCCTCTGGATG
GNATTTCTATTAATAATTGGATTTGGA

Sequence 280

TATTTGGTGAAGATCAGCGTTATCAGCATTTTCTACGATTAACGCTGGCCATGCTTTGA
CTGATGAAATCCGCCAAGCTATTTCAGCAGTTGGCGGATTGGGTCAGAGAAAGTCTCAAGT
CGAAATTGAGTTAGTCGAAGTCTGCTTTCAATACGATGCGATAACGTGCTTGACCTGAAT
GAAGTCGCTCAATGGCATCGTTGAGCTGTGACATAGGATAGAGTTCAATTTGCGGGGCGA
TATTTTACGTGCTGCAAATTTGAAGAAGTTGACGAAGTGCTAAAGGAGAACCCGTCGGT
GAACCTGTTACTGATTTGGCACCATCAATCAAAGCACCCGACTGAAACTGGGAATAGGTT
CTAAAGTCAGACCTAGAAAAATG

Sequence 281

NGGTACCTCCACCGCGGTGGCGGCCGAGGTACANCCTCTCGGCCCGGCTAAACATCATCG
TCTTGGTAGGTCAATTACNTACCACTAATAATGNTCCGCACCCCATTTTTAAGTGAA
GCTGNGAAGCTCCTTTCTATTACTCATCATGCGATAAATAACTATATCCGGTATTAAGCT
ATTGATTCCAATAGTTATCCAGNCTTAAAGGTAGGTTAGGTACCTGCCCG

Sequence 282

CGANAAGCANGATTTTNAATTNTTGCAGCCCGGGGGATCCGNGGAGNGGGGAGAGCCAC
CGCGGGGGAGCGCCAACACGACNNAGAGCGAGNCGNAATACGCGCGCACACNGACCGCNG
ANNAACAAACGNNAGACGGGGAAAACCCNGGCGNCCNCAAAAAACGCCCGNGCAGCA
CAGNCCCCAAAAGCCAGCNAGGCGGAANANCGAACAGGCCCGCACCNAGCGNCCGNCCCC
ACAGNAGCACAAAGCCCCGAANGGCGAAAAGGG

Sequence 283

AAACCCCTNAAAAAGTNCCAAGGGGCCGCCAANNCGACTANAGCGAGNCGCATTACGCG
CGCNCACGTGTTTGTCTGNTTAAACGCCGCGACCGGGNNGAACCNNGGCGNNACCCAACAG
GAAGCGCCGCGCANACAAACCCCNACGCCAGCAGGCCGAnnnnnnnnnnnnnnnnnnnnn
nn
nn
nn
AGNGGAGGAAACAGCGCAGCAGAGACCGNACACANGCCAAC
GCCNAGCNCCCAGCNCNNACGCNAGCAACCCACCNAAACANCGNCCACGNACGACNGCN
NGCCCCCGCNCANNCNAAAAACGGGGGCCCCCNANNANGGGGACCCGANAAANCGCNAN
NACGGCACCCNCCGACCCCAAAAAACNNGAAAGAGNAGAGAGGAGCAGNAAGNNGGGC
CAANCGCCCCNGAAAAGAACNNGGCGNCCCGCCCNANGAACGAANGGGGANGACCCACGNC
CCNAAAAANAGGGGGACACCCGAGNNACCCAAACGGGGNAACACACGCAAAACCCNAAG
GCCGGCCGAAACGNGAANGGAACCAACAAGGGGACACANGCCCGAAAACCGGNCCAAAGG
GGGAAAAAAGAAAGCCGNAANNCAACAAAAANCNNAACGGCGAAAGNNNAACAA
AANAAGAAACCNCNAACAACNCAAAGGNGNCACNNNNNCNNGGAAAAAGGGGCCCC

Sequence 284

CGGGCAGGTACCTAACCTACCTTTAAGACTGGGATAACTATNGGAAACAATAGCTAATAC
CGGATATAGNTATTTATCGCATGATGAGNAATAGAAAGGAGCTTCACAGCTTCACTTAA
AATGGGGGTGCGGAACATTAAGTTAGTTGGTAGGGTAATGGCCTACCAAGACGATGATGT
TNAGCCCGGGCCCGAGAGGCTGTACCTCGGCCCGCCACCGCGGTGnnnnnnnnnnnnnnnn
nn
nn
nn
ACTTAATCCGCCTTGACGACAAATCCCCCTTTTCGCCAG
CTGGGCGTAATAGCGAAAGAGGCCCGCACCCGAAC

Sequence 285

CGTCCGTNAGGCCTGTNCTTACGGCTGGGTTTAGAAACCAGCCCATTCAGAAAGACTGAA
TCAGAACATGGATNAAGTGAACNTATTCTAAGATGACTCGNNTATCCATGTNGATTAATC

TABLE 1
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TNCTGGNTCATAATAGGCCTCTTCCCTTTGATTGAAGGGTCACGTNTAAGTATANAAAAC
ATAAACTGTAAGGTAGAGGAAGCGAAGGATAGCTTNGTATTAATGTTGCGTTAAAGCTT
CAGAGACAAGAACAAGAACACTCCTCCACGTGACAGCATTTGAATAGGAGGCGGNGGGT
GCNGCAGCCTGGGCAGCTTCAGTCCCATTACAATAAAGTACCTTGNGNGTNATTAGTT
CTTAAATGTTTATTTAGAAATGGCATTGATGTT

Sequence 286

GCGTCCGGTCACCGCACTGAACTTCGGGACCAAAAGCTTCCATGCCGCGGNCCCCAGACA
AAGGCAGCTTCCCGCTGGACCACTTCGGTGAATGTAAAAGCTTTAAAGAAAAATTCATGA
GGTGTCTCCGTGACAAGAAGTATGAAAATGCTTTGTGCAGAAATGAATCTAAAGAAGTAT
TTAATGTGCAGGATGCAAAGGCAGCTGATGGCACCAGGAGCCGCTAGAGAAGCTCGGCTTT
AGAGACCTAATGGAAGGGAAGCCAGAGGCAAAGGATGAATGTTGAGAAGGGAGCCACAGG
ACCTTGTCCTCCAGCCTGGAGCAGAGCTGAGCCCTTCTGCCACAGNGCAGGGGGACCTGA
CACTCAGCCCGTGCTGGCCCGTGACAGGGGCTCTCCCTGGG

Sequence 287

CGTCCGGTGCACTGCAACTTNTATATNTAACCCTAACTCCAATAAAACAAATTCAGGG
AAAACCAAGGGTGTAATGGGATGTGCGTGTTTATCAGGAGTGTGCTCTCACGTGGATGCT
GAATGATGGAGGACAGCGGACTGCATAAGCCAGAAACCTGTACGGGTGCTGGCTGTGGAA
AGACGTGTCTGTCTCTATCTATGTACAATAGTTNATTCTGTGAGGCTGAAAAAGTATGGT
CTTTAGGACCTTGCCCTCTAACTATAGAACTTAAACAGTGTACTGCTATTAGATATAT
CTGATATTAATAGAACATGCCAAGTGCAGGTCCCAATGCGTATTTGTGAAGCACACATC
TGAGTAAATGGCTTAGATGGAAAGCAAGTCATCATGAGTAAAAATTAAGCCTCAAACCTG
CCGGTGCTCCTCACCTCTTTGTACCCAGGTAAAGGTCACACTGTGTGTTGCTTTTGNTGT
CTTCTCTCCTAACCTAG

Sequence 288

CNCGCGTCCGGGGCTTGTTTACTATGGCCGATGATCTGGAGCAGCAGCCTCAAGGCTGGC
TGAGTAGCTGGCTGCCACGTGGCGCCCCACTTCCATGTCTCAGCTGAAGAATGNNGAAG
CTAGGATCCTCCAGTGTCTCCAGAATAAGTTCCCTGGCCAGATATGTGTCCCTCCCAACC
AGAATAAAGATCTGGACGGTGAAGTGTGAGCCCCGAGCAAAAGGACCCGACCCCCCTGGTG
ATGGTGCACGGTTTTGGGGGCGGCGTGGGCCTCTGGATCCTCAACATGGACTCACTGAGT
GCCCGCCGCACACTGCACACCTTCGATCTGCTTGGNNTTGGGCGAAGCTCAAGGCCAGCA
TTCCCGAGGGACCCGGAGGGGGCTGAGGATGAGTTTG

Sequence 289

NGGAAAGCCGGCATAAGTGACATNGTTTGGGCAGTTGCCNGCTGGAAGGAGGCAACC
CANACCACCTTAAGCCATAAAAGCCCGTGACACTGCTANCNAAGGTGCCTTGCCACCCG
TTTGCCACCNCTCCCGGAAATGNAAAAAAGTCGCGTGCCNTAAAAAAGCTGCCGGAAGG
NCCTGGGTGNACNTTTGGGCCACCCCCACCCCGCTGGCAAGGNCTTGAATTGNGTNACNC
CAAAAGACGCCANGCCGGACCTTGGNAAANNATTGTTNTTTNGGGANAAAAAAAATG
GANCCCGNTGGGGGAGGCCCTTGGGGGCATTGNGNAAGCCCCGGAGGGTTCCCCGNTGT
TGCGNNGGGTCAAATTCAAAGGCCAGTGGTNGGCCACCCCGGGGAACCTGGNNGCTGTTG
CAAGNACCNNGGTGGGGAACCGTTTCAAGGAATACCCCAACCAACCCANGTAGCCACCTT
AAGGTAATTTGGCCACCTTGCCACCANAANGNGCCATTGGGGAAGAAACCACCAAAAA
CGTCCCCCGGGT

Sequence 290

CCCCGCGCTCAGTATGACTCTTTAGTCCCAGTTTTTCATGGGTAGTCTCTAAATTCTTTAC
CTTTATGTGATTGTGAGTTGGGAGGTGGTGGGCATCATCTTAGTCCATTTACCTTTTTCA
GTTTTGTAATTATCGTCTTCATCTACTACCTTTATATAATAAAGGGAAGGGGTCTTCC
TTTACAAATAGTTTTATCATCCTTCTCTTTTGATGTCTATATCTTCTATTTTTGAGGA
GAATATATGTTGTATAGACCTACACGTGGGTGGAAGAAGAGTCATGTATGTGTGATTGTG
TGAGATCCAGAATGTTGGAACCTTTAATTTCTTATTTTGTACTTATAATTACCTGCTGGA
ATACCTGGTTGCATTCTGTATATTGTACCCTCATTTAAAGTTTCATGGAGGCAAAATAAC
TCTGTTGCACATAAGGCCGGGGCTTATGCATGTCTATCGGATGTGGGCTCAGATCACGG

TABLE 1
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AAGACCCGAA

Sequence 291

TCTTGCAGACTCAAGCTCCGCGCGCAGCCGCTCCTGGTGCGGGCCACAGCAGCCTGGGC
CCCGGNTCGCCCCGGAGCCCCCTGGCCTGCGACGACTGTTCCCTTCGATCGGCCAAATC
CTCCTTCAGCCTCCTGGCGCCCATCCGCAGCAAGGACGTTTCGCAGCAGGAGTTACCTGGA
GGGCAGCCTNCTGGCCAGNGGGGCCCTGCTGGGGGCAGACGAGCTGGCCCGCTACTTCCC
AGACCGGTACGTGGCGCTCTTCGNGGCCACCTGGAACATGCAGGGCCAGAA

Sequence 292

NGGCCCCGCCCCGGGCAGGTAATAAATTTAATTAATGAGCTAACGTCATATTTTTTAAGTT
TTTCAATTCCGTTTTAAAAATCCTAATTCAAGTAAAAAGATTACTTTATGAACAACAGCAC
CTTGAGATTGATTAAGTTAATAATCGCTTTCATTGTTCCGCCCAGNTAGCTAAAACATC
ATCAATAATTGCTACTTTTTGGCCTTTTTTCAACATATTAAGTTTGGATTTCTAGAGTTG
ATTTACCATATTCTAAATCATACTCAAACTAATAACGTCTCCTGGTAATTTTTTAGGTT
TTCTTACCATAATAAAAGTTTTTTTTAAAAAGCCTGCAGTAAGGTGGTCCCAACAAGA
AAACCCTCTTTGCGTCTGGGACCTATAATAACCATCTGCATCTTAGCTAACTCAAGCCC
ATTTGATTAATTGGNGTAATTTAGCACTTCTCCATTTGCTAAAAGGTGGTGAAATAATCT
TTAAAATACAATCCCTTCAAATTGGGGAAATCTTTAAACATCCCCCGGCGGTACCTCGG
GCCCGCTTCTAGAACTAGTGGGATCCCCCGGGCCTG

Sequence 293

GCTCCCCGCGGTGGCGGCCGCCCCGGGCTGGTACGCGGGGAAATGCAAAAAATCAAATCAA
TTAATACGAATACATCATGAGATGTTAAAGATTTCCCAATTGAAGGGATTGNNTTTAA
GATATTTCAACCACTTTTAGCANATGGAGAAGTGCTAAATTACACAATTAATCAAGTGGCT
GAGTTAGCTAAAGATGCAGATGTTATTATAGGGCCAGACGCCAAGAGTTTCTTGTTTG
GACACCTACTGCAGCTTTTTTAAAAAACCTTTTATTATGGTAAGAAAACCTAAAAAATT
ACCAGGAGACGTTATTAGTTTTGAGTATGATTTAGAATATGGTAAATCAACTCTAGAAAT
CCAACTAATATGTTGAAAAAAGGCCAAAAAGTAGCAATTATTGATGATGTTTTAGCTAC
TGGCGGACAATGAAAG

Sequence 294

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACAATTTCTAATTG
ATCCTGTTACATTACAGTGAATGGCATTGCATATTTATATGTTGCTTACAGCTTATTGA
TTTAGTTAACTATTGTGTCTTCCCTTCACTATCTGACCTGAAAAGCACTCTCTTCTCTATG
CACTCTTATATTGCTTTTCTGCCTGGAGTTTGAAATACATGTCTCTTTAGTTTCTTTT
GCACATGCTACATTGTGCTTTAGACCGGGAGATAATACAGGNGCCTTACCTTACAAATN
ATNTTTNTGGCAACNCNAATNTNTNGAAATTTTNTTTAATTTNAAAAACCCCAACCAA
TTTTCCNNCNCNAAAAATTTTTTTTTTGGGAAAAATTAANTTCTTTAAANNNAACCCCCN
AAAAATTATNGGNGNNAAGGNGCCCCNTTTTGGGCCCTTTTTTTTTTTCNCGGGNG
GGGNAAAAATTTNAAAAAANTTTTTTTTGGGNCCCCGGGAGAAAAANNTCCCTNTT
TTTTTTTTCNNGGGTTTTAAAAANGGGGGGNAAAAATNTTNTTGGCCCCCCCCNTTTT

Sequence 295

TATAGGGCGAATTGGAGCTCCCCGCCCCGNGGTCCCAAATGGAAGTGTGAAAAACCANGGCC
CATCCCCCNNTTTNTAGAGGGGTGGTAAAAATAAACCCANANATCAAGGGGAGAAAGG
AAAAGGATGAAAGGACAACTGCCAAAAAATTTNCCCAAAGTGGCGACTTTTTTAANTN
TGGGAGCCAGAATTCTGAGGGCTTTCATTGTCTTTGCAATTCNCTCAAGGAGCCTGAAA
TTGAAAAAAAATGCCAACAAGGCCAAATNACTACTTTTTAGGAGGGGGTTTTGGAGGTC
TTGGGAAGCCTCATTCCCNTTCAACCNNTCNAATTCTGGGAATGGGGGAAATGGAAAGAA
TAGAAGATGTTGGGTGCCCACTAGGCTACTGNTTAAAAGGGGAAGCTTGAAAANTTNT
NCACCCAAGGTTGGGTATTCAAAAATATTGTAATGGACTGGGTATTGGCAAAAAGG

Sequence 296

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACAGGTGGGTCCCTTTTCAGAGGT
TGGGCCTTCTAGACCTCACCTGTTCTCACTNCCCTGGTTTAAATTCAACCCCAAGCCATG

TABLE 1

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GCCAATGGCCAAATAATAGAAATTGGTTCCCTACCCAGCTGGACCAGGGGAGGGAGGTCT
TGTGCAGTTTTCTTGACCACTTTGTTGGTTGGACCATNGGCTTAAATACCAATGGGGTATT
CGGCTTGAGACCTAAAGTTTGTAAAGAAAATTNAACCAAAATGGTGCCTGCTTGGGTAAA
AATGGGCTACCACCTCAATCTGGACTTCAATTCTTTTAATTCTAATTTTAAGTTTGGGT
TTGGTATTCTTTGGCCTAAAGGTGGCGGTAGTCCCAACCTCTTTGGGTANTTACCCCTTC
CTAAATAGGTCAATACCTAGGTAGGTCAATACCTCCCTGGGTGGTAAGGNGGTATTTCTT
CTTAAAAAAGCCTTTTAAAA

Sequence 297

CCGCGGTGGCGGCCGCCCGGGCAGGTACGGCCACACTGGGACTGAGATACGGCCCAGACT
CCTACGGGAGGCAGCAGTAAGGNNTTTTCCACAATGAGCGAAAGCTTGATGGAGCGACAC
AGCGTGCAGGATGAAGTTCTTCGGAATGTAACTGCTGTTATAAGGGAAAAAAAAAAAAA
AATAANNAAAAAAAAANGGTACCT

Sequence 298

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGNCAGGTACGCGGNGAAATGCA
AAAAATCAAATCAATTTAATAGAATACATCAGAGATGTTAAAGATTTCCCAATTGAAGG
GGTTGTATTTAAAGATATTTCAACACTTTTAGCAAATGGAGAAGTGCTAAATTACACAAT
TAATCAAATGGCTGAGTTAGCTAAAGATGCANATGTTATTATAGGTCCAGACGCAAGAGG
TTTCTTGTTTGGGACACCTACTGCAGCTNTTTTAAAAAACCTTTTATTATGGTAAGAAA
ACCTAAAAAATTACNAGGAGACGTTATTAGTTTNGAGTATGATTTAGAATATGGTAAATC
AACTCTAGAAATCCAACTAATATTTTGA AAAAAG

Sequence 299

CCGGGCAGGTACGGCCACACTGGGACTGAGATACGGCCCAGACTCCTACGGGAGGCAGCA
GTAAGGAATTTTCCACAATGAGCGAAAGCTTGATGGAGCGACACAGCGTGCAGGATGAAG
TTCTTCGGAATGTAACTGCTGTTATAAGGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
GTACCT

Sequence 300

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTCTAGGACAATCAGGAAG
TAATCTTAAAAAATAATTGAAGATGTTAAAAATACGTTAAAAATAAAAACTTGTTTT
AAACATAGATGCAGTAGAAATTGAAAAACCAGATTTAGATGCAAAATTATTAGCTGAATC
AATTGCAATTAATTAAGTAAGAACCGTGGATCATACCGTATGGCACAAAAATTTGCAATTCG
TTTAGCACAAAAAGCCGAGCTAAAGGTATTA AAACTAAAGTTAGTGGTCGTTTAAATGG
TGTTGATATGGCTAGATCAGAAGGATATTCTGAAGGTGAAATGAAATTACACACACTTAG
ACAAGATGTTAGTTATGCAACAGCAACAGCAAGAACAACCTTATGGAGCACTTGGAGTTAA
AGTTTGAGTTTCATTAGGCGAAGTATTT

Sequence 301

CCGGCCAGGTACGCGGGGAAATGCAAAAAAATCAAATCANGNTAATAGAATACATCAGAG
ATGTTAAAGATTTCCCAATTGAAGGGATTGNATTTAAAGATATTTCAACACTTTTAGCAA
ATGGAGAAGTGCTAAATNACACAATTAATCAAATGGCTGAGTTAGCTAAAGATGCAGATG
TTATTATAGGTCCAGACGCAAGAGGTTTCTTGTGTTGGGACACCTACTGCAGCTTTTTTAA
AAAAACCTTTTATTATGGTAAGAAAACCTAAAAAATTACCAGGANACGTTATTAGTTTNG
AGTATGATTTACAATATGGTAAATCAACTCTAGAAATCCAACTAATATGTTGAAAAAAG
GCCAAAAAGTAGCAATTATTGATGATGTTTGTAGCTACTGGCGGAACAATGAAAGCGATTA
TTAACTTAATCGAATCTCAAGGTGCTGNTGTTTATAAAGNAATCTTTTACTTGAATTAG
GATTTTAAACGGNATTNAAAACTTAAAAAATATGACCGTTAGCTCATTAAATAAAAAG
TTTAGTACCTCGGCCCGCTCTAG

Sequence 302

AGGTACTTTGATATCTNCGCCCTCTCGTGTGTTCTTGTGGNGNTAACCAGAGGCAAGAT
GCCCCAGGAACTTCATGTGTATGTCTACCAGGATTTAGATGATCTCTAATAATGGAGGA
CCTGCTATTATTTGTAAAAAGTGCCAGAAAACATGAAAGGTGTTACAGAAGATGGCTGG
AACTGCATTTCTTGCCCTAGTGACTTAACTGCCGAAGGAAAATGTCACTGTCCCATTTGGC
CATATTTTAGTGAAAGAGACATTNATGGAACATTGNTGNCTCAAGCAACTNGNGAGCTC

TABLE 1
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TGNGATGGAAATGAAAACCTTTTTATGGTAGTAAATGCTTTAGGAGACAGGNGCGTNCGA
TGTGAGCCAACATTTGNTAATACCAGCAGGTCCTGTGCATGTTNCGAACCTAACATTTTA
ACAGGGGGATTATGTTTCAGNAGCACAGGGAATTTTTCCTTGACGTANAATTTACCTG
CACGTTATGGAGAAGTTTGGCAT

Sequence 303

CCGGGCAGGTACGCGGGGAAATGCAAAAAATCAAATCAATTTAATAGAATACATCAGAG
ATGTTAAAGATTTCCCAATTGAAGGGATTGTATTTAAAGATATTTCACTACTTTTAGCAA
ATGGAGAAGTGCTAAATTACACAATTAATCAAATGGCTGAGTTAGCTAAAGATGCAGATG
TTATTATAGGTCCAGACGCAAGAGGTTTCTTGTTTGGGACACCTACTGCAGCTTTTTTAA
AAAAACCTTTTATTATGGTAAGAAAACCTAAAAAATTACCAGGAGACGTTATTAGTTTTG
AGTATGATTTAGAATATGGTAAATCAACTCTAGAAATCCAACTAATATGTTGAAAAAG
GCCAAAAAGTAGCAATTATTGATGATGTTTTAGCTACTGGCGGAACAATGAAAGCGATTA
TTAACTTAATCGAATCTCAAGGTGCTGTTGTTTCATAAAGTAATCTTTTACTTGAATTAG
GATTTTTAAACGGAATTGAAAAACTTAAAAAATATGACGTTAGCTCATTAAATTAAGTTT
AGTACCTCGGCCGCTCTA

Sequence 304

GCGGTGGCGGCCGAGGTACCTTNTCCGAATGCACCTTNAAGCGGGTATTAGCCTATACA
GGCTGTTTTAGTCGAATGCAGACCATCAAGGAAATTCNNGAATATCTATCTCAAAGACTG
CGCATTAAAGAGGAAGATATGCGCCTGNGGCTANTCCANAAGTGGAGAANTACCTTACTC
TTTCTGGGNTGATGAGGAATCATAAATCTGGAATATTTNGAAAATCCAGGATGAACAACA
C

Sequence 305

GCNNGCGCGGGGAAATGCAAAAAATCAAATCAATTTAATAGAATACATCAGAGATGTTA
AAGATTTCCCAATTGNNGGGATTGTATTTAAAGATATTTCACTACTTTAGCAAATGGAG
AAGTGCTAAATTACACAATTAATCAAATGGCTGAGTTNAGCTAAAGATGCAGATGTTATT
ATAGGTCCAGACGCAANGAGGTTTCTTGTTTGGGACACCTACTGCAGCTTTTTTAAAAAA
ACCTTTTATTATGGTAAGAAAACCTAAAAAATTACCAGGAGACGTTATTAGTTTTGAGTA
TGATTTAGAATATGGTAAATCAACTCTAGAAATCCAACTAATATGTTGAAAAAAGGCCA
AAAAGTAGCAATTATTGATGATGTTTTAAGCTACTGGCGGAACAATGAAAGCCGATTATT
AACTTAATCGAATCTCAAGNGCTGGTGNTCATAAAGTAATCTTTTTTACTTGGAATTAG
GGATTTTTNAACCGGAAATTGGAAAAA

Sequence 306

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTACGCGGGGCAATTA
TGAAATTATTGCAGAAAGAAGATTCACCTCTCACCTGATGAATAAGTGTTTCATAGGTNAAG
GCTACAAAATACTAATTTGTTATTATTTTAATAATAATTTTTGTTTTGCTGAGAAAGTG
GATTTACCACTTTTTTATTTTTAATCCAAGGAGGAAAAATTATTTCCAAACCAATCCT
AAAAATTTTTCACGTTCTAAACCAGTTCAAGAACATTGAGTAAACAGAAATATTCCATT
GTCAAAGTTTTTCTTATCGGCTCAGATAATGAAAAAATTGGGATAATTGAAACAAGAGAA
GCTATTGAAATGGCAAAAGAACAAAA

Sequence 307

CGAATNGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGCAGCAAGCGGACGTGAGC
GATAATGGCGGATATGGAGGATCTCTTCGGGAGCGACGCCGACNGCGAAGCTGAGCGTAA
AGATTCTGATTCTGGATCTGACTCAGATTCTGATCAAGAGAATGCTGCCTCTGGCAGTAA
TGCCTCTGGAAGTGAAAGTGATCAGGATGAAAGAGGTGATTCAGGACAACCAAGTAATAA
GGAAGTGTGGAGATGACAGTGAGGACGAGGGAGCTTCACATCATAGTGGTAGTGATAA
TCACTCTGAAAGATCAGACAATAGATCAGAAGCTTCTGAGCGTTCTGACCATGAGGACAA
TGACCCCTCAGATGTAGATCAGCACAGTGGATCAGAAGCCCCTA

Sequence 308

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAATGTTATTAATGTGACTGACA
AGTAATTAGAAAACCTGGAAATTAATTTTACAAACATTTTTAAAATCGCTNCAATTAATAA
AATTCAAGATGGTTACATTATGAATATGAATGAAATGTCATTAGCGACTTCGTTAAATG

TABLE 1
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TATATGTAATTCTATATTTTCCCCAAAACCCACATTTTATGAAGAATATTTATTTATTTA
TTTATTTTTGTTTTTGGAGTCTCGCTCTGTTGCCAGACTGGAGTGCAATGGTGC
GATCTCCGCTCACTGCAACCTCCACCTCCTGGGTTCAAACGATTCTCCTGCCTCAGCCTC
CCGAGNAGCTGGGACTACAGGCACCGNCACCACGCCCGGCTAATT

Sequence 309

CCGCGGTGGCGGCCGCCGGGCAGGTAAGTACCCTCCTTGATGGTTTACTTTGCAAGCTA
TGGTGACCTCCGCAAGTTGTGTCTGGGCCCATCCAGGGCTCTGACTAATTGTATTCAAAT
CAAGGCAGGAGCGGGCCAGCTGGCGTTGACTTAACCAAGCCATTTTATAAGCCTCCCGAT
CATTTTTAAGCCACTCTAAGTCGTGTAGTAGGATCTGGTCAGAGTTATGTATACTCTGAT
GGGCATGTGCTGTGTCTGCTCTAAAATGTCCAGAAGTTCTGAAACACTTTTAGATCTTCCAG
AATTTCTTGAGGAAGTCTGCCTAAGTAAGTATGCACATCAAGTTCATCACCGGAGGAAT
CAAAAGAATTTCCATTTTCTATTTCTCTACAGAAAAGAAAAGGATCTTCCTTTAAGATGG
AAATATTATTTCTCTC

Sequence 310

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCACTTGAATTATCTA
TTGAAAGAACTACTACATCGAGTTTTTGTCTTTGCCATTTCAATAGCTTCTNTTGGNN
NAATTATCCCAATTTTTTCTTATCTGAGCCGATAAGAAAACTTTGACAAATGGAATAT
TTCTGTTTACTCAATGTTCTTGAAGTGGTTAGAAGCTGAAAAATTTTAGGATTTGGTT
TGGAATAATTTTCTCCTTGGAATAAAAAATAAAAAAGTGGTAAATCCACTTTCTCAG
CAAAACAAAAATTATTATTAATAATAACAAATTAGTATTTTGTAGCCTTTACCTATG
AACACTTATTCATCAGGTGAGAGTGAATCTTCTTCTGCAATAATTTCTAATTGCCCGN
GTACCTGCCCGGGCGGC

Sequence 311

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGNCAAGGTACCTGACTGTGGC
TCANATCTGCGTCGCAGCAGCGAGAGAAGAAATCACTCCATATCCGATGAGAGGAAGGGT
GGCACAGANATGGTGTCTACAATTAGAGACATTTCTGACTCCACCTTAGCCTAAGCAAAC
TTTATATACTGAGTAACATTTGAAGGTTGTCTTTAATGGTGGGGGGTGNTTTTCTTT
TTAACTACAGT

Sequence 312

CCAAAANGGNCCTGGGGCGTGGTCACGGCCNAGGTACAAAATTATGACTGTTTTAGCTC
CAGGAACAGATTTAAAAAGTAATTGAAGACGTTTTAAATCTGTTTTGATGCTAAGAACA
TCGAAAAAATTGAAAACTTGAAAGAACAGAGTTAGCATACGAAATTAANNAGCACAAA
CAAGGAATTTTTGTTTTAGCTAACTTAAATCTGAGGAAAGTTTAAATCGAAGAATTTGTC
AGAAGAGTAAATATTCTCAAAAAACAAGTTTTAAGATTTTAGTTATTAATCTAGATTCT
GAAAGAGGAATGCACAAAACCTTCAGACCTAGAAAAAATGATAAACACAAATTTTCTCT
TCTAAAAAACCA

Sequence 313

AATNGGGCCTNGCGTGGTCACGCCCAGGTACNAAATTATGACTGTTTTAGCTCCAGGAAC
AGATTAAAAGTATTGAGCNTTTTAACTNTTTTATCTAAGACATCGAAAATTGAAAAC
TGAAAGACAGAGTTAGCATACNAATTTAAANGCACAACAGGATTTTTGTTTTACTAACT
TAAATCTGGGGAAGTTAATCNAAGATTTGTGAGAAGAGTAAATATTCTCAAAAAACAAG
TTTTAAGATTTTAGTTATTAATCTAGATTCTGAAAGAGGATTGCNCAAACTTTTCAGAC
CTAGAAAAATTGATAAACACAAATTTTCTNTTTAAAAAA

Sequence 314

NGGGCCTNGGNGTGGNNACGANCCAGGTACTTTTACCAAAGAATCTACTAGAACTCTCTG
CTATTCAAAAACAAAGAGCTCATACTTGTGGAGTAGGGAAAAAATTAGAAATTTGACCAA
AAGATAGATTCAATCAACTACAAAGTCAATTCAGATGCTGNTAACATCGAACTCTTG
AAAAAGAACTATTANAATCTGGAGTTGAACTTAATGGATCATATACCTGNTTTGCTTGA
TCAAGCGGATTGNTCAGCTTAATATTAAGAAGATGGNATCTATTTAGATCTTACTTTAG
GACGNGGNGNCATTGAGNCAATTTTAAAAAACTTACTA

Sequence 315

TABLE 1
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CCCTTTGAGCGGCCGCCCGGGCAGGTACTTGTCCATAATTTGTGAATATATTAATACTAAT
TTTTCTTTTGAGTATTCATTTACTAAGCTGAAAAGCTTTGAGCTTGATTCATT
CTCATATCCAAACGAGCTTGTGTTGTATGAAAATCCTCTATTGGCTTGATCTAAGTGA
GGTGAAGATACTCCTAAATCAAGTAATACACCATCTACTTTGTTGATTTGAAGTTTTTTT
AGTTCTTGATCAAAATCTTTAAATCAGATCAAAATAAATTCAATATTTGAAGAAATTTT
AAGAGTTTTCTTTGTTGTTCAATTGCTTGTGTTGCTTTATCAAAGACTA

Sequence 316

CCCTTAGCGTGGTCGCGGCCGAGGTACAGGAACTGCCAAAGGCAACAGAAATCTTTCTC
CCTATGTCCAGCCTACCCCACTTTACCGAGGCCAACAGCCGCTCAGAAACCAGATTC
AGGAGCTAACATGCCCCAGGTCTCACGAGGATCAGAGACTCCAGAGGCCAGGGAAGGAGA
TCAAGGTAGTCAAGCGGGGGTCTGCTCAGATCTGGTTGTGCTCGAGCTATGCAAATGCCT
CTCATGGAGATGTGAGGACCTATCTATTATGATGACCAGGGCCACATCCGGAGGGGGCAA
CAGACTTTCATCTATCAGCCCTTTCAACCACTGATCTACTAACTGGAAACACTCTGAA

Sequence 317

NGGGCCTTGNAGCGGCCGCCCGGGCAGGTACGCGGGGGTTTAAAAAATATTTAAAAA
ATGGAGGAATTATGAACTTAAAAAGCAAATTAAGAAGCTTTTAGGTGCTACTGCACTTG
TGTTGCCAGTAGCATTTTTTGTCTTGTCCAAACAAGATTTGNNNAAGTAAATGACCATA
AATTAGTGATTGCTCACACTTTAATAGTAGAGAAGGAAGGTTTTAGCATTAGATCAAA
TTGTTAAGCTTTGAAATGAAAGTGAAAAAGTTAAAAACAAAGAAGAAGGATTTTATCCAA
TAACACTAAATCGACAATTTGCGCAAATTTATGCAGAA

Sequence 318

CAGGTACTTTAGCTCCAAAATCAGTTTGATGAGATACAGTTGCCCTATATGAGAATGCA
CAGGATTCCTCATTGGTGAGTTCAACCATACATTTTTGGGTAACCTGAAGACATCTGCA
AATTGTGAGTTAGTTGGTGGGGTCCATTAACTTTGCATATGTTATTCTTTCTACTGAAG
TGTGTGAGGCCACAACGTGCCATTATGCATATCANAAACAGAAATTTGTTGAGGATAAT
TTTGATATTACGACGNGGCTGNGAACTGGATTGAATTACCGGGATACATGCATGCTT
CTTGGTT

Sequence 319

CCCTTAGCGTGGTCGCGGCCGAGGTACGCGGGGCAATACGTAGAGATAATAACAGTTTTT
TAAAAAATTAATATTTGTTATTGAATGTATTTTTGAGTATTGCATCTTTTCTATACT
AATAAGGAGGTGTAATTTGAACGCTTTTAGAAAGAAAAAAGAAGAAATAGTGCAAGAAAT
TAAAGATTTGATTAATCTTCTTCTTCATTAGTTATAGCTGAATATCGTGGATTAACAGT
TGCTGAAATTGAACTCTTAGAAATGAAGCTTAAAGAAGCAGGTGTTTTGTAAAAGTTT
ATAAAAAAGACTATTTAAATAGCATCTAAGAAGCAGGTTTCGGAGATTTAGAACAAT
CACTAGTTGGTCCAAATTTTTTGTCTTTGGTTCTACAGATGCANTAGCTCCAGCTAAAA
TTATTTCAAATTCGCTAAAAACAAATCCAGTAAGTTGTATTAAGGCGGTATTTTTTG
A

Sequence 320

CCCTTAGCGTGGTCGCGGCCGAGGTACCACGGAATTTTAAAAATAGACTNTAAAAAACCN
TCAATTGCANAATAATTTGNTTGATTTACTTCAAATTGAAGGAACCTTTTAGGTTTT
GTTGNAATAGTAAANGAAATTCGATNAGTAATCAATCAAAGAATAATGAATNGACAAAT
TCTGACATAAAAAACAGCCAAAGAATATCATTTAGAACAATAANAGCGCTTAAAAAACT
TCAAATTAACAAATATAATTTATAATTTATGGCACTATGAAAAAAGNGACTTTATTTA
ATATCAACTTTTANCATTTTCAACAATTTTATTAGCTATTNCTNGTGGTAAAAATCAAAT
ACTCCTGTAGGCACACAACCAANTTGATANTCCAAGCCTGGAGGATTCATCAAGNGAATCA
ANAGTTCTGGATTTAAATTAATAGAAAAAAG

Sequence 321

CCCTTAGCGTGGTCGCGGCCGAGGTACAATTTCTAATTGATCCTGTTACATTCAAGTGAA
ATGGCATTGCATATTTATATGTTGCTTACAGCTTATTGATTTAGGTAACCTATTGTGCTT
CCTTCACTATCTGACCTGAAAAGCACTCTCTTCTCTATGCACTCTTATATTCTGCCTTC

TABLE 1
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TGCCTGGAGTTTGAAATACATGTCTCTTTAGTTTCTTTTGCACATGCTACATTGTGCTTT
AGACCGGAGATAATACAGTGACTTTACCTCACAAATCATATTCTGTCAACACAAATCTAT
GAATTTAGTTTATTTAAAATCAGAACAATTTCTACAAAATTTTCTGGAAAAATAGACTC
CTAACAGACCTACCAGAATCATGCTTAAAGGGCTCCCTTGACACTTATTCTATACTGAAG
GATAAATTTTAAAAAAT

Sequence 322

CCCTTTGAGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTAGTTAA
ATATAAATTTATTTATTAACCTTTTCAATACCTTTTGAAGGTCAAAGTTTGTAAAGATGAA
TTAGGTTCTTTTGAAGTAAATCCCACAAGTGAAGTGCAGCTAGAATAATAAATACTG
CATATGCAGCTTCTGTTGATGCTGATTTAATTCCTGCAACTAGAACAGTTGCTATAGAAT
AAAATGCATAACCTAATCCTCANATAAGTCCAAATTGATATCCAACCTTTTTAGGATTTG
ATCCTTTGTATTGGGAGGAAGATTTAAGATAACACCTTGAATTCCTCAAAGCATTACTC
CCATTAAAAATCCTAAAATATAGAATAATCAAGTTCATTACCTA

Sequence 323

GCGGTGGCGGCCGCCCGGGCAGGTACAAGGTAAAGCAAGAGCTGGCTCTCTACGTTCAACC
AATTTTTGTAGGTGGTGGTTCGTGCATTTGGGCCTACAAATAATAAAAAATTACAAATTAA
ATTAAACAAAAAAGTTGCAAATTAGCTTTTGCCTCAGCTTTTAAGTCAACTTGCTCAA
ATAATCAAGTACCT

Sequence 324

NNCTTAGCGTGGTCGCGGCCGAGGTACGCGGGGAAATGCAAAAAATCAAATCAATTTAA
TAGAATACATCAGAGATGTTAAAGATTTCCCAATTGAAGGGATTGTATTTAAAGATATTT
CACCCTTTTAGCAAATGGAGAAGTGCTAAATTACACAATTANNCAAATGGCTGAGTTAG
CTAAAGATGCAGATGTTATTATAGGTCCAGACGCAAGAGGTTTCTTGTTTGGGACACCTA
CTGNAGCTTTTTTAAAAAACCTTTTATTATGGTAAGAAAAACCTAAAAAATTACCAGGAG
ACGTTATTAGTTTTGAGTATGATTTAG

Sequence 325

CCCTTTGAGCGGCCGCCCGGGCAGGTACTTGTCCATAATTTGTGAATATATTAACATAAT
TTTTCTTTTGAAGTATTCATTTACTAAGCTGAAAAGCTTTGAGCTTGATTCATT
CTCATATCCAAACGAGCTTGTTTGTGTATGAAAATCCTCTATTGGCTTGATCTAACTGA
GGTGAAGATACTCCTAAATCAAGTAATACACCATCTACTTTGTTGATTTGAAGTTTTTT
AGTTCTTGATCAAAATCTTTAAATCAGATCAAAATAAATTCAATATTTGAAGAAATTTT
AAGAGTTTTTCTTTGTTTGTCAATTGCTTGTTTGTCTTTATCAAAGACTA

Sequence 326

CCCTTAGCGTGGTCGCGGCCGAGGTACAGGAACTGCCAAAGGCAACAGAAATCTTTCTC
CCTATGTCCCAGCCTACCCCACTTTACCGAGGCCAACAGCCGCCTCAGAAACCAGATTC
AGGAGCTAACATGCCCCAGGTCTCACGAGGATCAGAGACTCCAGAGGCCAGGGAAGGAGA
TCAAGGTAGTCAAGCGGGGGTCTGCTCAGATCTGGTTGTGCTCGAGCTATGCAAAATGCCT
CTCATGGAGATGTGAGGACCTATCTATTATGATGACCAGGGCCACATCCGGAGGGGGCAA
CAGACTTTCATCTATCAGCCCTTTCAACCACTGATCTACTAACTGGAAACACTCTGAA

Sequence 327

NGGGCCTTGNGAGCGGCCGCCCGGGCAGGTACGCGGGGGTTTAAAAAATATTTAAAAA
ATGGAGGAATTATGAACTTAAAAAGCAAATTAAGAAGCTTTTGGTGCTACTGCACCTG
TGTTGCCAGTAGCATTTTTGCTTCTTGCCAAACAAGATTTGNNNAAGTAAATGACCATA
AATTAGTGATTGCTCACACTTTAATAGTAGAGAAGGAAGGTTTTAGCATTAGATCAAA
TTGTTAAGCTTTGAAATGAAAGTAAAAAGTTAAAAACAAAGAAGAAGGATTTATCCAA
TAACACTAAATCGACAATTTGCGCAAACCTATGCAGAA

Sequence 328

CAGGTACTTTAGCTCCAAAATCAGTTTGATGAGATACAGTTGCCCTATATGAGAATGCA
CAGGATTCCTCATTGGTGAGTTCAACCATACATTTGGGTAACCTGAAGACATCTGCA
AATTGTGAGTTAGTTGGTGGGGTCCATTAAACATTTGCATATGTTATTCTTTCTACTGAAG

TABLE 1
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TGTGTGAGGCCACAACGTGTCCCATTATGCATATCANAAACAGAAATTTGTTGAGGATAAT
TTTGATATTTCAGCAGNGGCTGNGAACTGGATTTGAATTACCGGGATACATGCATGCTT
CTTGGTT

Sequence 329

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAACCTTTAATTAATGAGC
TAACGTCATATTTTTAAGTTTTTCAATTCGGTTTAAAAATCCTAATTCAGTAAAAAGA
TACTTTATGAACAACAGCACCTTGAGATTGATTAAAGTTAATAATCGCTTTCATTGTTT
CGCCAGTAGCTAAAACATCATCAATAATTGCTACTTTTTGGCCTTTTTTCAACATATTAG
TTTGATTCTAGAGTTGATTTACCATATTCTAAATCATACTCAAACTAATAACGTCTC
CTGGTAATTTTTAGGTTTTCTTACCATAATAAAAAGGGTTTTTTTAAAAAGCTTGCAG
TTAGGGTGGTCCCAAACAA

Sequence 330

CCGCGGTGGCGGCCGCCGCGGCAGGTACACCTCTGATTCTCACTAGTTGAATGCAAGAAC
TTGAAAGGTTTCAGGTAAGTGTGTTTTGAAAAATTTGACTTTCCAACTTTTGCCACTTGCT
ATCTGAAACTCAGGAATCAAAAAATACCGACAGGCACTGTTACTTTCAAAATCTTTCTA
TAAGTTGAGAATGGGACAGATTTGCAGAGCAAGGGAACTTGAACAGTTACTTCTAGTGG
TAGGAAATGAGGTGGCTAGGATATTACCCAGCTGGTGGGTGACTTGGGCAGTGTGTTCTT
GCTTTCAGTGGTTAGCCTTTAGCAAATCTGCTTTAGAGTGAGAGTAGAGGGCAGGCTGTT
GTATTACAGTGCTCTTGTTTTTGTAATAATTAATCACTCTACTGNTATTTTGTCTCCTT
GGGTAAAGNGNTATTTAATTTTTCT

Sequence 331

ATTATTGCNGAAGAAGATTCACCTCTCACCTGNTGAATAACGTGTTTCATAGGTAAAGGCT
ACAAAATACTAATTTGTTATTATTTTTAATAATAATTTTTGTTTTGCTGANAAAGTGGAT
TTACCACTTTTTATTTTTAATCCAAGGAGGAAAAATTTTCCAACCAAATCCTAAAA
ATTTTTACGTTCTAAACCAGTTCAAGAACATTGAGTAAACAGAAATATTCATTTGTCA
AAGTTTTCTTATCGGCTCAGATAATGAAAAATNNGGGGATA

Sequence 332

CCGCGGTGGCGGCCGCCGCGGCCAAGGTACGCGGGGGCAGAAGAGGAAGATTTCTGAAGAG
TGCAGCTGCCTGAACCGAGCCCTGCCGAACAGCTGAGAATTGCACTGCAACCATGAGGTA
AATATTTTCCCTTCGTATTCGGTAGTGCTGTTGAGTCATCTTGTTCAATGCAAATCCTGA
GAAGCTATGTTCCCAAAGAGGGCCAGCTCCATTTAGTGTTTGTTTATAGCCTTACTATGC
CTCTACCTCTGGGGGTTGTAAATCTGTTNTACCCAATGGGNGGGTTTGTNNCCCTCCCTG
AANCAAATTTTTCTGCTTNNACACTTGGGCAAACCNNTTTCCTAAATTTCTCTCCCCTG
ACTTTGCNCCNCCNTTGGGGGGAGGTTTGGGGTTTTCAACTCCNGAANAAAAAGAGGGGC
CCCCACCNNAGGGNNTNNTTTNTTTTAAATTNNGGCCNNGGGGNTTNNANTTAAAAAA
NNGGGNTTTTNGGGGGACNNTTTTTNTTTTACCCTCCCCCCCCCTTTTTT

Sequence 333

GGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGCGGCAGGTACAACGTTGACCTTCCTTG
CCCAAGAATGAATGATTAAAAAGTTGAAAAGCTGTGTTTGTAGATCGTTCAGGCCTTCGT
CTGCAACTATCAGGAAATATGGGTAACCTCTTCCAAGAACTTCCCCACTCTTTTGATA
AGCATCTCGAAAATGTTGTTGGAACATCAATGGTGGTATTTTCTGAAGATGAAGAATTAA
AGCAGTTCTCAAAGAAAGAAGTTCAGGGAAGTTGAAATACGCATACTCGGCATCCTTGAA
GAAAATATGGTGAATTGTCTCCTTTGCTAATAAGATCCACAAGATAGCCGTTCAACCA
GATAGAAAAAATGGGAGGTNCCTGCCCCAGGCTTTAAANTGANTNNCNCNCAGCATCCC
CTTGGGGATNNGGTAANNCCNCCCCCNANCAAAAAAAAAAATTTTTCCCNCCNACC
NAATTNTGAAAAACCNNGNGGGGGTTAAAAATTTTGNNGTNCNNAATTTNAAAAAAAAA
AN

Sequence 334

CCGGGCAGGTAAGGAGATATTGATTCTAGTCAATTAGGCATTGTAGACTGTCATGACC
ACTTAATAAAAAATTATGGACCTGAAGCTCACGAGCATCCAGATTTTATTATGATGTCAA
AAGATGCTGCAATTAAGAAATGAATGAATATGTAGCAAAAGGAGGAAAAACTGTTGTTA

TABLE 1
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CAATGGACCCTCCTAACGTTGGGCGTGATGTTTATCAAATGTTAGATATTGCAAAGAAAT
TAGAAGGAAAAAGCTAACATTATTATGGCAACTGGTTTTCATAAAGCTGCATTTTATGACA
AAGGTGCTTCTTGACTTGCTTTGGCTCCAACAGATAAAATTGNAAAAATGGTTGTAGCTG
AAATCGAAGAAGGAATGGATGAATATAACTACAGCGGACCAGTTGTAAAAAGATCTAAAT
CCAAAGCCGGAATTATTAAGC

Sequence 335

CTCCCCGCGGTGGCGGCCGAGGTACCGCGGGGAAATGCAAAAAAATCAANNACAGTNNANT
CNAATACATCACAGATGTTNAAGATTTCCCAATTGAAGGGATTGTATTTAAAGATATTTT
ACCACTTTTAGCAAATGGGAGANGTGCTAAATTACACAATTAATCAAATGGCTGAGTTAG
CTAAAGATGCAGATGTTATTATAGGTCCAGACGCAAGAGGTTTCTTGTTTGGGACACCTA
CTGCAGCTTTTTTAAAAAACCTTTTATTATGGTAAGAAAAACCTAAAAAATTACCAGGAG
ACGTTNTTAGTTTTGAGTATGATTAGAATATGGTAAATCAACTCTAGAAATCCAACTA
ATATGTTGAAAAAAGGC

Sequence 336

CTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGAAATGCAA
AAAAATCAAATCAATTTAATAGAATACATCAGAGATGTTAAAGATTTCCCAATTGAAGGG
ATTGTATTTAAAGATATTTCACTACTTTTAGCAAATGGAGAAGTGCTAAATTACACAATT
AATCAAATGGCTGAGTTAGCTAAAGATGCAGATGTTATTATAGGTCCAGACGCAAGAGGT
TTCTTGTTTGGGACACCTACTGCAGCTTTTTTAAAAAACCTTTTATTATGGTAAGAAAA
CCTAAAAAATTACCAGGAGACCGTTATTTAGGTTTTNGGGTNNAGATTTAAATTGNGG
AAANCCCCNNTNTAGAAATCCAACTAATTNTGTTGNNAAGGGCCAAAAAGTNCCAA
TTATTGGTGATGTTTTAGCTACTGGCGGAACAATGAAAGCGATTATTAACCT

Sequence 337

CCGCGGTGGCGGCCGAGGTACCAATAATAGCAACCCTGTGATTTGTCCAAGTGCCCCGGA
GTGGAGGCCATCCTGACAACAGCTCTATGATTTTCTATGCCAATGACACAGGAGCCCAAC
AGTTTGAAAAGTGGTGGGATAAGTCCAGGACAGTCCCCTTTTATCTTGAGGGCTCCTCC
TCCCCTGCTCAATTTCAAGTCTCCTTCATTTTTTCAAATTTAATATCCTAGGCACAG
TGTCTGTCCTTTATTTGATTTTCCTTGTCACCTTTAAGGCTGTTGCTTGGGATTTTATT
TGGAATTTCAATTGGTTTATACCAACAGAATTTTTGTACCTGCCCG

Sequence 338

CCGGGCAGGTACCTGGAAGACTTCTCCACCTCGGGGGCCTGGCTGCCTCACAGGTATGAA
GACAACCACCATAACTGCTACTCTTACGCACTCACGTTTCTTAAGTGGCTTCTGATGGCA
GAAGGTAGACAGCAACTGGACAAGGGTGAATTTACGGAGAAGTACCT

Sequence 339

ATAAACTGCGGGATCTCAATGGCTTCTATGATCGTATTGAGGCAGTAGTTCCACACTCT
GCCCGGTGCCAGCATGAAAGAGAACAGGGAGAGTCAGCCTTTACAGTCCTTGTCAAATC
CCAATTACTCTGGTTGCAGATCACTTGAAGCCTGCCTTGTTTCTCTCACAAGCTCTGCC
CGAGAGTCCAGCCCCGCGTACCTGCCCG

Sequence 340

GCGAATTGGAGCTCCCCGCGNGGCGGCCGAGGTACAAGATAGTCATNTCAGTAAAAGGT
CTATTATCTAACTTGCCAACTTGTTTANNGAGAGCCCTAAGGAACTAAAACTGCCATAA
TGCCNTGCACAGCTTGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTCTCCCTTCCAG
TTCCTCAGCAGGCCTGGCTGAAGGCCAGGAGGAAGGAAATATAAGAACCAACAATAAA
AATAGCAATAGCAATAAGAAGAATGCCATCCCATGGAGCACACCATAATTCTGGAACCAC
CTNTCCCGGATCAGGCTTCCATTGCTCACGATGCTCACGCTGGGCAG

Sequence 341

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTCTAGGACAA
TCAGGAAGTAATCTTAAAAAATAATTGAAGATGTTAAAAATACGTTAAAAATAAAAAA
CTTGTTTTAAACATAGATGCAGTAGAAATTGAAAAACCAGATTTAGATGCAAAATTATTA
GCTGAATCAATTGCAATTAATTAAGAAAACCGTGGATCATACCGTATGGCACAAAAATTT
GCAATTCGTTTAGCACAAAAAGCCGGAGCTAAAGGTATTAAACTAAAGTTAGCGGTGCT

TABLE 1
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TTAAATGGTGTTGATATGGCTAGATCAGAAGGATATTCTGAAGGTGAAATGAAATTACAC
ACACTTAGACAAGATGTTAGTTATGCAACAGCAACAGCAAGAACAACCTTATGGAGCACTT
GGAGTTAAAGTTTGAGTTTCATTAGGCGAAAGTATTTGCAAAGCAAAATCAAGCATATAA
TGAAGAAGAACCAACNCACAAAAAGGGCCAAAAAGAGCAGCAAGAGTTAAAAAGAA

Sequence 342

CCGGGCAGGTACCGCTGTGTCCGGGTGGGTGGTCAGAATGCCGTGCTCCAGGTGTTACACA
GCTGCTTCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGCC
TGTGCCCAACTGGGTTTCCCAAGCTATGTGAGTTCAGATAACCTCAGAGTGAGCTCGCTG
GAGGGGCAGTTCGGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTG
ACTGCATTACCACTCAGTATATGTGAGGGAGGGATGTGCCTCTGGCCACGTGGTTACC
TTGCAGTGACAGCCTGTGGTCATAGAAGGGGCTACAGCTCACGCATCGTGGGTGGA

Sequence 343

CCGGGCAGGTACCGCTGTGTCCGGGTGGGTGGTCATGAATGCCGTGCTCCAGGTGTTACAC
AGCTGCTTCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGC
CTGTGCCCAACTGGGTTTCCCAAGCTATGTGAGTTCAGATAACCTCAGAGTGAGCTCGCT
GGAGGGGCAGTTCGGGGAGGAGTTTGTGTCCATCGATCACCTNTTGCCAGATGACAAGGN
GACTGCATTACCACTCAGTATATGTGAGGGAGGGATGTGCCTCTGGCCAC

Sequence 344

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAATAACTTTAATTAATGA
GCTAACGTCATATTTTTAAGTTTTCAATTCGGTTAAAAATCCTAATTCAAGTAAAAA
GATTACTTTATGAACAACAGCACCTTGAGATTGATTAAGTTAATAATCGCTTTCATTGT
TCCGCCAGTAGCTAAAACATCATCAATAATTGCTACTTTTTGGCCTTTTTCAACATAAT
TAAGTTTGGATTTCTAGAGNTTGATTTACCATATTTNTAAATCATTCCTCAAACTAATA
ACCGCCTCTGGGAAATTTTTTAGGGTTTTNTTACCCCTAAATAAAAAAGGNTTNTT
TT

Sequence 345

CCGCGGTGGCGGCCGCCCGGGCACGGTACCACTTGAATTATCTATTGAAAGAACTACTAC
ATCGAGTTTTTGTCTTTTGCCATTTCAATAGCTTCTCTTGTTCATTTATCCCAATTTT
TTCATTATCTGAGCCGATAAGAAAAACTTTGACAAATGGAATATTTCTGTTTACTCAATG
TTCTTGAAGTGGTTTAGAACGTGAAAAATTTTTAGGATTTGGTTTGGAAATAATTTTTCC
TCCTTGATTAATAAATAAAAAAGTGGTAAATCCACTTTCTCAGCAAAACAAAAATTATT
ATTAAAAATAATAACAAATTAGTATTTGTAGCCTTTACCTATGAACACTTATTCATCAG
GTGAGAGTGAATCTTCTTTCTGCAATAATTTCTAATTGCCCCGCGTCCTTGGCCGCTCTA
GAACTAGGTGGG

Sequence 346

CACTACTATAGGGNGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTAGGA
GATATTGATCCTAGTCAATTAGGCATTGTAGACTGTCATGACCACTTAATAAAAAATTAT
GGACCTGAAGCTCACGAGCATCCAGATTTTATTATGATGTCAAAGATGCTGCAATTA
GAAATGAATGAATATGTAGCAAAAGGAGGAAAAACTGTTGTTACAATGGACCCTCCTAAC
GTTGGGCGTGATGTTTATCAAATGTTAGATATTGCAAAGAAATTAGAAGGAAAAGCTAAC
ATTATTATGGCAACTGGTTTTATAAAGCTGCATTTTATGACAAAGGTGCTTCTTGACTT
GCTTTGGCTCCAACAGATAAAATTGAAAAATGGTTGTAGCTGAAATCGAAGAAGGAATG

Sequence 347

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCGTAGAAGAAGAAGG
AATACCTAAAGAAACAGACATAGAAATCATCCAGAAATCCCGGAACTCTAGAGCCACT
GTCCCTTCAGATGTGCTGAGGATCTCGGCAGTCTGGAGGACACCACAGGCCAGCTCTC
TATTCTGAACATCATGCCCCGTTACGTACCT

Sequence 348

TNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAATAACTTTAATTAATG
AGCTAACGTCATATTTTTAAGTTTTTCAATTCGGTTAAAAATCCTAATTCAAGTAAAA

TABLE 1
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AGATTACTTTATGAACAACAGCACCTTGAGATTCGATTAAGTTAATAATCGCTTTCATTG
TTCGCCAGTAGCTAAACATCATCAATAATTGCTACTTTTTGGCCTTTTTCAACATAT
TAGTTTGGATTTCTAGAGTTGATTTACCATATTCTAAATCATACTCAAACTAATAACGT
CTCCTGGTAATTTTTAGGTTTTCTTACCATAATAAAAGGTTTTTTAAAAAGCTGCAG
TAGGTGTCCCAAACAAGAAACCTCTTGCGTCTGGACCTATAATAACATCTGCATCTTTAG
CTAACTCAGCCCATTGATTAATTGTGTAATTTAGCACTTCTCCATTGCTAAAAGGTGG

Sequence 349

TCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTAAAACAGGT
GCTCCTGTTAAATAGAAAGATCTTGCAGCTACTTCTAGAGATTTAAATTCTAAACGATCA
ATAGCAGCGTATCCTGTTCCGGCTTTAATAATCCGGCTTTGGATTTAGATCTTTTTACA
ACTGGTCCGCTGTAGTTATATTCATCCATTCTTCTTCGATTTAGCTACAACCATTTTT
ACAATTTTATCTGTTGGAGCCAAAGCAAGTCAAGAAGCACCTTTGTCATAAAATGCAGCT
TTATGAAAACAGTTGCCATAATAATGTTAGCTTTTCTTCTAATTTCTTTGCAATATCT
AACATTTGATAAACATCACGCCAACGTTAGGGAGGGTCCATTGTAACAACAGTTTTTCC
TCCTTTTGCTACATATTCATTCTTTCTTAATTGCAGCATCTTTGACATCATAATAAA
ATCTGG

Sequence 350

TAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACATTCTTCACTATCA
CTGTCCTGTAAATTTAGTAGCCTTGGCTGGAAACACTGTAGTCGACATGATCTGATATTG
CTTAATATTTAGAAAGAGACAGTCTATTTTACAATGTTTACTGGAAGCATTGGTCCGA
GAGAAATTAGAAGAAAAGTCTATAGTTTGGGAAGAGCTTGAAAACTATTACAGCATTTCA
GGGTCTATCTGTTTCAGGACTGGGTCTGTTCTGTGGATATTCGGTCCATTATGACCCTT
CCACCTCTGCCAATTCGCCTCCTTGCAATCCTATACATCTTCTTGGGACTGTAAGTGT
GTAAGGC

Sequence 351

CTNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGCTTGGTGACTGTA
ATTAACAACAATGTATTTTGAAGTCACTGAGTAAATTTAAGTGGTTTTTCCAAAAAAG
CACATAAGGTAATGCACCGTTAATTAGCTATATTGAGCCATTCCACAATGTATAGATATT
TCAAAACATGTTACACATGATAAATCCAGTTTTTCTACGTCATTTTTTAAAATTATATT
AATTTTTTTATTTTGAAGTTTTTTCACAGATCTTTTTTTTAGTATTATTACCTTCTGAT
ATATGTGTCATTATTGAAGAACCATACCTTTTAAAGGTATTATTTTGAATTAAGGTATG
TCAACAGTAAAAATAACCAGTGGCCCAGGCCATNGGGGCTCATGCCTGTAATNCCAGC
ACTTTTTTCGGAGGCCCG

Sequence 352

CCGCGGTGGCGGCCGAGGTACCTGTGAAGACAGCTACACCTGGTTTCCTCCCTCATGCCT
TGATCCCCAGAAGTGTACCTTCACACGGCTGGAGCACTCCCAAGCTGTGAATGTCATCT
TCAAAACACCTCAGCCAGAGTGTCAATTTCTGTGAGAGAACAAGATTTGGGGCACTTTC
AAAATTAATGAAAGGTTTACAAATGACCTTTTGAATTCATCTTCTGCTATATACTCCAAA
TATGCAAATGGAATTGAAATTCAACTTAAAAAAGCATATGAAAGAATTCAAGGTTTTGAG
GTCGGTTCAGGTACCCAATTTGAAATGGAAGNCATCGTTGCTGGGTATTGAAAGGTTT
GT

Sequence 353

CCTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTGTTTTATATTCT
TCAAACTCTATTGATGAAAACTTAAAGATGAATTAGAAAAATCTTATGTAATTAGACAA
AAACCAAAAAAACAAAACTTATTTTAGAAAGACTTGGATAATGATTGATTATAAAAAAA
TGATTGACCATACTTTATTAACCAGAGCTACATCTAAAGATATTTTAAACTTATTT
CACAAGCTAAAGAACATGGATTTAGAGGAGTTTGCATTAACCTCTTCTGAGTTAAATTAG
CAAAAGAAAAACTTGCAAATACAGATTTAGATATCGTTTCAGTAGTTGGCTTTCCATTAG
GTGCATCAAACACACAAACCAAGGTTTTTGAAGCAAAATTAGCAGTTGAACATGGAGCTA
CTGAAATAGATATGGTTATAAATGTGGGTAAATTCAAA

TABLE 1

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Sequence 354

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGTGCATGAAACCAACACA
TACGGGCAAAAGCAGGAAGAGACTTTGCAGACATAAAAAACCAGGTAAGTTTTGAGAGTCA
GGTGATTGCAAGATTTTTTTTTCTTTCATTGACACTTAGCTAATTTTGAGCCATATTTTT
AAATGTGTGTCTTTTCAGTTACTTGAAACCTCTTCTCCACCTCCCATCCTTTCCAAACC
TCCTCCAAGCCAATTTTCCAGTTGGTTTAAAAGAAATCATTAGGGTGACCCCCACTCCCA
CTTCTGGAACCTCAGGCAGAGCTCCTGGGGTTCCTCC

Sequence 355

NNTTTTTTTTTTTTTTTTTTCGCTGGAATCCTTCACCTCTTGCTAAAGGAACAGTAA
TGTCATATCCTGTTAATCTTGCAGGAGGCGCTAATAAGAATTCAAATGCTTTCTCATTTT
TCTTGTAATAATTTCACTGAACTGAAAATGATTAACAGCTTCGTGAACAACTAAAAGTC
TTCCAGTTTTTTAACAGAGTTAATAATTGTATCTGTATCTAAAGGAGAAATTGTTCTTA
AATCAATTAATTCTACAGAGTATTCTCCATTTAATTGTTTTAAAGCAGCTAGTGCTTCGT
GAACTTGTGCTCCATATGTTACTAATGTTAAATCAGAACCTTCTACTAATACATTTGCTT
TACCAATTTCAACTTCATAAATTCCTGCTGGAGCTTCTTGTGTTGAATGAACGATAAATTT
TCTTAGGTTCTAAGAAAATAACTGGATCTGGGTCGTTAATAGCTGCGATTAATAATCCTT
TTGTATCATAAGGAGTTGAAGGCATAACAACCTT

Sequence 356

AGGGCGAATTGGAGCTCCCCGCGGTGGGCGGCCGAGGTCTAAACTTTAATTAATGAGCTA
ACGTCATATTTTTTAAGTTTTTCAATTCGTTTAAAAATCCTAATTCAAGTAAAAAGATT
ACTTTATGAACAACAGCACCTTGAGATTGAGTTAAGTTAATAATCGCTTTCATTGTTCCG
CAGAGCTAAAACATCATCAATAATTGCTACTTTTTGGCCTTTTTTCAACATATTAGTTTG
GATTTCTAGAGTTGATTTACCATATTCTAAATCATACTCAAACTAATAACGTCTCCTGG
TAATTTTTTAGGTTTTCTTACCATAATAAAAGGTTTTTTTTAAAAAGCTGCAGTAGGTGT
CCCAACAAGAAACCTCTTGCGTCTGGACCTATAATAACATCTGCATCTTTAGCTAACTC
AGCCATTTGATTAATTGTGTAATTTAGCACTTCTCCATTTGCTAAAAGTGGTGAAATATC
TTTAAATACAATCCCTTCAATTGGGAAATCTTAAACATCTCTGATGTATTCTATTAAAT
GATTTGATTTTTTTGCATTTCCCCGCGTACCTGCCCGGGCGGC

Sequence 357

GAATGGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGATAGTCATCTCAGTAAAAGGTCT
ATTATCTAACTTGCCAAACTTGTTTACTGAGAGCCCTAAGGAACTAAAAGTCCATAATG
CCGTGCACAGCTTGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTTCTCCCTTCCAGTT
CCTCAGCAGGCCTGGCTGAAGGCCAGGAGGGAAG

Sequence 358

AGGTACANGATAGTCATCTCAGTAAAAGGTCTATTATCTAACTTGCCAACTTGTTTACT
GAGAGCCCTAAGGAACTAAAAGTCCATAATGCCGTGCACAGCTTGAAAAGCAATTAAGA
GTAAGCAAGATTAGTTTTTCTCCCTTCCAGTTCTCAGCAGGCCTGGCTGAAGGCCAG
GAGGGGAAGGGAAATATAACGGAACCCAACAATTAANAAATAGGCAAATAGCCAATTAA
GTAAGGAATGNCATCCCATGGGAGGCANCAACCATTAAATTTCTTGGGAACCCACTNTNT
CCNNGGATTGAGGGCTTCCATTTGCTTCACNGATGGCTTCACGTCTGGNGCAGCCCGGC
AACTCTTACTTTGCCAGGAAACCTCACCTCAACTTTGCCAGGGTATTTCTNCCCCGGG
TCTTGGAANGAAAATGGGCTTCTNCCACCTGAAAAAGGGTTNGAATCCTTTCTTCCCAT
TACCCAGGCTTTCCNTTTAAAGCCAAAAGGCCAAATTCCTCCTTTTTTGGCTTTTCT

Sequence 359

CTAATTGATCCTGNTCACATTCAGTGAAATGGCATTGCATATTTATATGTTGCTNACAGC
TTATTGATTTAGGTAACATTTGTGTCTTCTTCACTATCTGACCTGAAAAGCACTCTCTT
CTCTATGCACTCTTATATTCTGCCTTTCTGCCTGGAGTTTGAAATACATGTCTCTTTAGT
TTCTTTTGCACATGCTACATTGGGCTTTAGACCGGAGATAATACAGTGACTTTACCTCAC
AATCATATTCTGTCAACACAAATCTATGAATTTAGTTTATTTAAAATCAGAAACAATTTT
CTACAAAATTTTCTGGAAAATAGACTCCTAACAGACCTACCAGAATCATGCTTAAAGTG
CTCCCTTGACACTTATTCTATACTGAAGGATAAATTTTAA

TABLE 1

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Sequence 360

CCGCGGTGGCGGCCGAGGTACAAGATAGTCATCTCAGTAAAAGGTCTATTATCTAACTTG
CCAAACTTGTCTACTGAGAGCCCTAAGGAACCTAACTGCCATAATGTCGTGCACAGCTT
GAAAAGCAATTAGAGTAAGCAAGATTAGTTTTCTCCCTTCCAGTTCCTCAGCAGGCCT
GGCTGAAGGCCAGGAGGGAAGGAAATATAAGAACCAACAATAAAAATAGCAATAGCAAT
AAGAAGAATGCCATCCCATGGAGCACACCATAATTCTGGAACC

Sequence 361

TNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTGTTTTATATT
CTTCAAATCCTATTGATGAAAACTTAAAGATGAATTAGAAAAATCTTATGTAATTAGAC
AAAAACCAAAAAACAAAACTTATTTAGAAAGACTTGGATAATGATTGATTATAAAAA
AATGATTGACCATACTTTATTAACCAGAAAGCTACATCTAAAGATATTTTAAACTTAT
TTCACAAGCTAAAGAACATGGATTTAGAGGAGTTTGCATTAACTCTTCTTGAGTTAAATT
AGCAAAAGAAAACTTGCAAATACAGATTTAGATATCGTTTCAGTAGTTGGCTTTCCATT
AGGTGCATCAAACACACAAACCAAGGTTTTGAAGCAAAATTAGCAGTTGAACNTGGAGC
TACTGAAATAGATNATGGGTATAAATGGTGGGTAAATTTCAA

Sequence 362

CCGCGGTGGCGGCCGCCCGGGCATGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCT
TGGTAGGCCATTACCATACCACTAACTAATGTTCCGCACCCCCATTTTAAGTGAAGCT
GTGAAGCTCCTTTCTATTACTCATCATGCGATAAATACTATATCCGGTATTAGCTATTG
TTTCCAATAGTTATCCAGTCTTAAAGGTAGGTTAGGTACCT

Sequence 363

CACTACTATAGGGNTNATTGGAGCTCNCCGCGGTGGCGGCCGTGCTGTTGCTTGGCCGCG
CGCCAGGCTGGCCAGAGGTGCTGTTCCACTGGGGCGTGGCCGTGATGGTGTGCGCCGATC
GACGTTCTGTTTTAATGAAAGGATGGACATGCAACTGACACTCGCACAACTCTTGGCAAT
CATGCCCAATGCCCGCTCCAAAGCGGGTATTTTTTGCCTGCGCTAAACGTGGCCATGGC
GGAATTCGGTATCAACACGTGGCGCGCCAGGCCGCGTGGCTGGCCACCATCGGTGTCGA
GTCCGGTAGCCTGCAGCGGGTAGAGGAAAACTTGAACCTACCGCGCGGATCGCCTNCTCGT
TATTTTCGGAAATACTTCACGCCGGCGTTGGCCGCAGCTTATTGCCGGCAAGCCGGAAA
TGATCGNCAACCGTGTTACGCCAACCCGCATGGGGGAAACG

Sequence 364

AGGTACTAACTTTAATTAATGAGCTAACGTCATATTTTTAAGTTTTCAATTCGGTT
AAAACTCTAATTCAAGTAAAAAGATTACTTTATGAACAACAGCACCTTGAGATTCGATT
AAGTTAATAATCGTTCATTGTTCCGCCAGTAGCTAAACATCATCAATAATTGCTACTTT
TTGGCCTTTTTCAACATATTAGTTTGGATTCTAGAGTTGATTTACCATATTCTAAATC
ATACTCAAACTAATAACGTCTCCTGGTAATTTTTAGGTTTTCTTACCATAATAAAAGG
TTTTTTTAAAAAGCTGCAGTAGGTGTCCCAACAAGAAACCTCTTGCGTCTGGACCTAT
AATAACATCTGCATCTTAGCTAACTCAGCCATTTGGATTAATTGTGTAATTTAAGCAC
TTCTCCATTTGCTAAAAGTGGTGAAATATCTTTAAATACAATCCCTTCAATTGGGGAAA
TCTTTAAACATCTCNGGATGGTATTCTATTAATTAATGAATTGAATTTTTTTGGC

Sequence 365

CCGCGGTGGCGGCCCGAGGTACCAAAATAAAGGGTATTTGCTACCTTTAATACTTGCCAG
TTCAGGTTGGAGGCACAGGCAGCAGCAAGAATGGAAAGAAATGTTCTTACAACATTTTCA
CAGGAAATGTCCAGTTAATTTTGAATGAAATGCAAAGCTGAATATTCCAGTTTATTCA
ATGATTTTGTGAATCTGAATTTTTTTGATTGATGGGGATTCACTTATCACATGTA
TCTGTGAGATATCATTTAAGCCTGGGCAGAACCTCCATTTCTTCTATCTGGTTGAACGCT
ATCTTGTGGATCTTATTAGCAAAGGAGGACAATTCACCATAGTTTTCTTCAAGGATGCCG
AGTATGCNTATTCAACTTCCCTGGACTTCTTTCTTGAGAACTGCTTTAATTTCTCATCT
NCAGAAAGAATACCCCATTTGATGTTCAACAACATTTTCGAGATGCTTATCAAAAAGAG
TGGGGAAAGTTTCTTTGGAAGANGAGTTACCCCATATTTNCTGATTGTTGGCAGACGAAA
NGCCTTGAACGATCTACAAAACCNACGCTTTTTAACTTTTTAAATCNTTCAATTCCTTG
GGGCAAAGGGAANGNTNAACTTTGGTACCTTGCCCGGG

TABLE 1
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Sequence 366

CCGCGGTGGCGGCCCGCCGGGCAGGTACGCGGGGAAATGCAAAAAATCAAATCAATTT
AATAGAATACATCAGAGATGTTAAAGATTTCCCAATTGAAGGGATTGTATTTAAAGATAT
TTCACCACTTTTAGCAAATGGAGAAGTGCTAAATTCACAATAATCAAATGGCTGAGTTAG
CTAAAGATGCAGATGTTATTATAGGTCCAGACCCAAGAGGTTTCTTGTTTGGGACACCTA
CTGCAGCTTTTTTAAAAAACCTTTTATTATGGTAAGAAAACCTAA

Sequence 367

AGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTTGGTAGGCCATTACCTACCAAC
TAACTAATGTTCCGCACCCCATTTTTAAGTGAAGCTGTGAAGCTCCTTTCTATTACTCA
TCATGCGATAAATAACTATATCCGGTATTAGCTATTGTTTCCAATAGTTATCCCAGTCTT
AAAGGTAGGTTAGGTACCTGCCCC

Sequence 368

ACCGCGGTGGCGGCCGAGGTACGGCCACACTGGGACTGAGATACGGCCCAGACTCCTACG
GGAGGCAGCAGTAAGGAATTTTCCACAATGAGCGAAAGCTTGATGGAGCGACACAGNGTG
CAGGATGAAGTTNTTCGGAATGTAACTGCTGTTATAAGGGAAAAAANAAAAAAAAAAAA
AAAAAAAGGTNCCTGCCCC

Sequence 369

GGCGGCCGAGGNACAATATAGNCATCGCNTTAAACNGCCNANTNTTAANCNCGCCAAACT
TGGTTACTGAGAGCCCTAAGGAACATAAAACCGCCATAATGCCGGGCACAGCTTGAAAAGC
AATTAGAGGAAGCAAGANNAGNNNTTCCCTCCCTTCCAGNNCCTCAGCAGGCCTGGCTGAA
GGCCCAGGAGGGAAGGAAATATAAGAACCAACAATAAAAAATAGCAATAGCAATAAGAAGA
ATGCCATCCCANGGAGCACACCAAAATTCNGGAACCAACNCTCCCGGANCAAGGONTCCAT
TGNTCACGAAGCTCACGCNNGGCAGNCCGCAACTTTACTTTGNAGNAACCTCCCCACTTG
GCCAAGGGAATTCNCCCCCGGGCCTGGAAGAAAAGGGNTCTCCACCCGGAAAGGGGCGN
ACCTTTTCCCAAAACAGCCTTTCTTAAAGCNAAAAGCAAACCCNCTCTTTTGGGTTTC
NCAAAGGGGGCNGNACAAAAGGGAAGGGTTTTGGGGCNGGGGGGGGAAACAAAANCCCC
NCATTNGGAAGNTTGCCCCCGGCCGAGGGGAAGGGGAAAAGGTTGGNCCCCGGTTGGGGG
GGG

Sequence 370

ATTGTTGCTCNCCGCGGTGGCGGCCCGCCGGGCAGGTACANGGAAGTGCCAAAGGCAACA
GAAATCTTTCTCCCTATGTCCAGCCTACCCCCACTTTACCGAGGCCAACAGCCGCCTC
AGAAACCAGATTGAGGAGCTAACATGCCCCAGGTCTCACGAGGATCAGAGACTCCAGAGG
CCAGGGAAGGAGANNAAGGTAGNCAAGCGGGGTGGTCTCAAATCTGGTTGNGCTCGAGC
TATGCAATGCCTCTCATGGAGATGCGAGGACCTATCTATTATGATGACCAGGGCCACAT
CCGGAGGGGGCAACAGACTTTCATNTATCAAGCCCTT

Sequence 371

AGGTACTATTGACTAAAGTCAGTTGGGGGAGAGAGAGGCGGAAGTATATTACTTTTATGC
TTGGTTATACTAGAGAACAAATAGAACTGACTAAAGAAACATTAGATCAGTGGTTCTCA
GAGTATTGATATCTGGGAGTCCCAGCAACAGTCTGAGGAGGTTTCATGAGTTCAGAATATT
TTGATAATAACACTAAGATGGTATTTACTCTTCTAACTGGGTAGATATTTGCACTGGT

Sequence 372

CCGGGCAGGTACCGGGTCTAGGGAAGATGCAGAACACTTCAGCCTGGCAGAAGGCTCTAA
AGATCGTCAACCTTTCTCTGTTTCAATTTGAAATTTTTAAAAATATGCTAACTTAGCTGA
AAATCTCATGGAAACCAGGCTCCTCATCAGACTTGAAAGTCAAACCGGTTTCTCAACAAC
TTCTCTTTATGGTTCTGTATGGCTCCACAGAAAACCAGAAAAACATTTGGGGCAAGAAGC
TATGACTCTGTGAGGCCACATGGGAGCAGGCAGTCAATTATTACCTAAGGAACACCCAG
TTAGCATGAAGTATCCCATCACCTCGGTATTAAGCCCTGCATGCATTAGCTATTACCT

Sequence 373

ACTTTTTTTTTTTTTTGGCTCAATAGAAGTATGGAATAATTCCAGGTAATTTAAAGCATA
TTTTTCAATTGGTGTAAAGCTGCTCCATGAAGTCAGCTAGCTCCTCTAATTGGGATGGTTC
TTCATCACACGGCATGTTCTCAGAGTCTGATGACAGAGCATCAGTGTGTGGTCCCAGCAC

CCCCTCCTGTGCGGACTTCTGGGCATCCTCCTCCAGATACTCAATACTCTTGAGGGCCTG
AGGAAAGTCTCTATGAAAGGTCTTGCAATTTTGGGTGCAATGGTTTCCGTGACAGAAGGT
TCCTGAGAAAGCACCAAACTCCTCAGCTTTGACCGGGAAGCCAGCATCACGGACGCGT
GGGTGGAAGCTTGACCT

CCGGGCAGGTACCGCTACTGAAATTATTAACATACACTACAGATCAATTATATAANTAT
GTTAATATCTTTAGAAATCAAGAGTTGCAGCATAAGAGAAAGGGATACAAAAACAAAACA
AGCAAAGAAGTTACATAAAAAACGTAACGTTGTATTGAAAAACCAGTATGAACTTATGAT
TTAGTTTTCTTTCTAAAAACGGACGCGTGGGTCGAAGCTTGACCT

NGCGNTGCGCTCACCTGCCNCTTTCCANTCGAGGNAACCTGGTCGTGCNAGGGTGCNA
 NTAATGAATTGNCCAAACNCCNCCGNGAGNAGGCGGTTTTGCGTNATTGGGGCCGCT
 ATTCCNCTTTTCTCGCTCACCTGACTTCGCTGCCGCTCGGTCGNTCGGCTTGCCGCGCGA
 AGCCGGGTAATTCAAGCCTCCACTCAAAAAGGGCCGGGTAATTACCGGGTTTNTCCAC
 CAANGAAATTTCAAGGGGGGATTAAACCNCNAAGGGAAAAANGAAACATTGTNNGANNC
 AAANAAAGGGCCCNNNCAAAAAANNGGGCCANGNNGAACNCNCCGTAAAAAAAAG

[illegible]

CGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGTGATG
CTGGCTTCCCGGTCAAAGCTGAGGAGTTTGTGGTGCTTCTCAGGAACCTTCTGTCACGG
AAACCATTGCACCCAAAATTGCAAGACCTTTCATAGAGACTTTCCTCAGGCCCTCAAGAG
TATTGAGTATCTGGAGGAGGATGCCAGAAGTCCGCACAGGAGGGGGTGCTGGGACCACA
CACTGATGCTCTGTATCAGACTCTGAGAAATGCCGTGTGATGAAGAACCATCCCAATT
AGAGGAGCTAGCTGACTTCATGGAGCAGCTTACACCAATTGAAAAATATGCTTTAAATTA
CCTGGAAATATTNCATACTTTNTATTTGNGGCNAAAAAAAAA

[illegible]

Sequence 379

TABLE 1
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GAATTGNAGCTCCCCGCGGTGGCGGCCNNCCGGNCAGGTGGAAAGGTGGGTGGGGAGAGG
GAGGCTTATTTGTTGCTGCAGTGTAAGTGAAACCTAATTCATATGACTCAAACCTAA
GGTATATTTGGTTAGATCTAGGTGAGTTCTACTTTAGAGGAAATCCTGGTAACTGTTGTT
TGTTTGTAAGTTATAGCTGTAATTAATTTCCCTGTATTCAAAGCCCCCAAACCTGCAT
TCAGATACTATGCATTTAGACTTCCTTAGGCCAAAGTCAAGGCAACAAGCTGATGATTCTA
AGCTATTATTCAAGGAGTATCTACCATCATAAAGGTGGTTTAAGTCATATAGGATAATAT
CAATCAATAATACAGGGAGATGGCAAAAATTTTTGGNAAANCCCAATATTANCTTGGG
TTTATGACCCCNAAATCTCACACTTTGGGGNCNTATGGGAAAGGCTTTTTTTAAGACCC
GGGAGTTCAAGACCNGCCCTGGGCAACATTAACCAACCTCCTTTNNCCAAAANCTTTAA
AAAA

Sequence 380

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTTACAAGTCGACCCAC
GCGTCCGCTTCAGAATATCCAATTCATGTGAAGTACAGGAAATTATAGTTTAGATATTTT
TAAATGATTTGCCTGTCACCGTATAACACAAGGGTGTGATGACCAAGCTAGATCTCTTTA
CCATATCATTAAATAAAAGTCAAATTTTAAATTTGTGCCCAATTTGGCTGGGTGTGGTGGC
TCATTCCTGTGATTCCAGCACTTTGGGAGACCT

Sequence 381

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCC
GCATTTATTAAGGCTTGTATATGTTCAAGATCCAGTGAAGACTGTCTTGGGCGTGTATAA
TTGATCTTAACCACAAGGCTGAGAAGTTATGTGCAGGGCTTATGATGCTACTTCCAAAGT
ATTAAATCCTCCAGAGAAGCCTGTAGTGTGGGATGCAAACTATTTTAAGTGTGACCATGA
GGTGTTTTTTTGTGGACCATTTTAAAGCCAATGATAGGTTCTAAAGCAATCTCAACCTGA
GTTAGGTAGAATGGGTGGTTATCTGCACTCTAGCGGCCCTTCATAGCTATTGTATTCTG
GATTTCAATTCGGCACTTTATGTATTAGCTAAAAATTTTATGACCAAGATCTTTTGAAGTA
TACAAAGTAAATCTTCAAGGTGGATAGTTTATCCAAGTGTAATGTGTTGCACTAGGTC
AGCTTGGAAATTTTGAAGTGAATTTTGGCATCATTGCATACATCTGGTTTGTGTACCTGCC
CGGGCCGGCCGCTCTAGAACNGTGGATCCCC

Sequence 382

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTATTGACTAAAGTCA
GTTGGGGGAGAGAGAGGCGGAAGTATATTACTTTTATGCTTGGTTATACTAGAGAACAAA
TNGAAACTGACTAAAGAAACATTAGATCAGTGGTTCTCAGAGTATTGATATCTGGGAGTC
CCAGCAACAGTCTGAGGAGGTTTATGAGTTTCAAGTATTTTGAATAAACAATAAGATGG
TATTTACTCTTCTAACTGGGTAGATATTTGCACTGGT

Sequence 383

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATATCTGCATATACACCAT
TAATTTTACATCGTTGAGGTAGCCAAAAGTCTCGTAAGTGGGCTTTTATTAAATAATAT
AATGTTCTTAATAGAGGAAAAAGGAATTGAATACATTTTTAAAAACAAAATAACAAAACC
AATCCATTGTCCACAAAAGAAAATCAGTGGAGACAAAAGCAGTTTAATTTGCTGGATTC
TTTTGTGGCTTATTTTTTGTAGTATTATTTACAAAATGTTAGACTAATTTTTAAGCAATAT
TAATAATAAGCAACATACAACCTCCAAGAATAATATAATAAATAATAAACTGCGGACGCGT
GGTTCGAAGCTTGCTCGNNGGGGGCCGGNCGCTTCNAGGCCCNCCCGGGCAGGTACCCA
GTNATCACATAAATCTGCAATCATNTGGNTATTNAGCTTNACNTGNTTTTTTTTATTGN
NGAANTTGTTGTTGATTGATCAG

Sequence 384

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTTACAAGTCGACC
CACGCGTCCGCTTCAGAATATCCAATTCATGTGAAGTACAGGAAATTATAGTTTAGATAT
TTTTAAATGATTTGCCTGTCACCGTATAACACAAGGGTGTGATGACCAAGCTAGATCTCT
TTACCATATCATTAAATAAAAGTCAAATTTTAAATTTGTGCCCAATTTGGCTGGGTGTGGT
GGCTCATTCTGTGATTCCAGCACTTTGGGAGACCT

Sequence 385

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT

TABLE 1
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TTAAGAAATAGGGTCTCACTCTGTCCCCAGGCTGGAGCCATTATAGCTCACTACAGCTT
CTGACTCCTAGGCTCAAGGGATCCTGCCACCTCAGCCTCCCTGGTAGCTGGGACTATAGG
CAGGAGATCGCTTGAACCGGGAGGCGGAGGTTGCTGTAAGCTGAGATCGCGCCATTGCTT
TCCAGCCTGGGTGCCAGAGCAAACTCTGTCTCAAAAAAAAAAAAAAAAAATAATAATAATAA
TAAATAAAAGGCAAGGAATATAGGGAAAAGTCAAAAGAGATGGACTGTGAGAAGACTGG
GAAAGCCAGAAGAATGGNGGAAAATGTAGCATGGAGTAAGACAATAAAAATATAAGAGGA
CTCATTTTCGGACGCGTGGGTGCACTCACCTCGGCCGCTCTAGAACTAGTG

Sequence 386

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTTACAAGCTTCGACC
CACGCGTCCGGGAAATTTTAAATAAAATAGGTGAACATTTTAAATGACCTAATACATAT
TTAGTCCACATTGAACTTTGGCATTGTGTCATTGCCATTAAATTTTGATGGCATTAA
ATTTGATGCCATTAAATTTTGATCAGTAGGTAGCATTTTTTTCTTAGCTACAATTGTTT
TTTTTAATTATAAGTATTAATAATTCATGAAGATGATTCTTTTTGTAAAACAGTTTTGCA
TAAAAAGTAAGTCTCATTTTAAAGCAACTACCAACTTACTGGCCACCT

Sequence 387

AGGTCTTCGACCCACGCGTCCGATGGTTTTTGCAAAATTGAAAATGCATCGATATTACA
GTTAATTTTTTTCAGTGTGTATGTGGTATTAGGCTTAGAACTATAACACAGGAAGTTTTTA
GAGTATGTCCACTCTGGTTTACTCCTTTGTAAGTATTAATACCTGATAATTTACATCCTA
CAGCCCTGCCTTTTTTTTTTTTTTCAAGTTTGTCCAGCAAGTCTTGGCCCTTTGCATT
TTCTTAATACATTTTAGTACCTGCCCC

Sequence 388

CCGCGGTGGCGGCCGAGGTACAAAGAACAAGGGAAGCTAAGGAAGAAAAGATAGTCAAT
AAAAGATGTCTCATCTGGGCTTAGTGGCTCATGCCTGTAATCCCAACACTTTGGGAGGCT
GAGGCTCGAGGACTGCTTGAGTCCAGGAATTTGGGCAAGTAGGAAATTACTGAACAGCTG
CTATCACAGACAAATGCCTAACATTGTGAAGTGCTACACAGGGGAAGGAGACCCACGCTA
AGAGGAGAGCATGCACCCAGACACAGAAGTACAGAGGACACAGTTCAAAACACACATACAA
GAGGCTTAGGCACCTGTGGGCGTGTGTGTGCTCACAGCCAGCAAAATGAAAAAATCCC
AGCTCTGAAGGAGAGGCAAGTGCATGGCTTCCGTACCTGCCCC

Sequence 389

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGA
TGGTTTTTGCAAAATTGAAAATGCATCGATATTACAGTTAATTTTTTTCAGTGNGTATGT
GGTATTAGGCTTAGAACTATAACACAGGAAGTTTTTAGAGTATGTCCACTCTGGTTTACT
CCTTTGTAAGTATTAATACCTGATAATTTACATCCTACAGCCCTGCCTTTTTTTTTTTTT
TCAAGTTTGTCCAGCANGTCTTGGCCCTTTGCATTTTCTTAATACATTTTAGTACCTGC
CCGGGCGGCCGCGGCCGCCGGGCAGGTACNACTACCTCTTTAAAGTTGTCTTATTGGAGA
TTCTGGTGTGGAAANAGNAATCTCCTGTCTCGATTTACTANGAAATGAGTTTAATCTGG
AAAGCAAGAGCACCATTGGAGTAGAGTTTGCAACANNGANGCATCCAGGTTGATGGAAAA

Sequence 390

TCCCCGNGGTGGCGGCCGAGGTACTATTGACTAAAGTCAAGTTGGGGGAGAGAGAGGGCGG
AAGTATATTACTTTTNTGCTTGGTTATACTAGAGAACAAATAGAACTGACTAAAGAAAC
ATTNNATCATTGGTTCTCAGAGTATTGATATCTGGGAGTCCCAGCAACAGTNTGAGGAGG
TTCATGAGTTCAGAATATTTTGATAATAACACTAAGATGGTATTTACTCTTCTAACTGGG
TAGATATTTGCACTGGT

Sequence 391

AGGGCGAATTGGAGCTNNCCGCGGTGGCGGCCGAGGTCTTCNACCCACGCGTCCGATGGT
TTTTGCAAAATTGAAAATGCATCGATATTACAGTTAATTTTTTTCAGTGTGTATGTGGTA
TTAGGCTTAGAACTATAACACAGGAAGTTTTTAGAGTATGTCCACTCTGGTTTACTCCTT
TGTAAGTATTAATACCTGATAATTTACATCCTACAGCCCTGCCTTTTTTTTTTTTTTTCA
AGTTTGTCCCANCAAGTCTTGGCCCTTTGCATTTTCTTAATACATTTTAGTACCTGCCCC

TABLE 1
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Sequence 392

CCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTACCTGAAAATGCTTATTCTAGCTT
CACATTTGATTGTTTGGCTAAGAAGAAAATTATTTATTAGACTTAATTTTCCTCACGAGT
TTAAAGATTGCTTCAGATCTTAACTTCTAATGAGGAAAGCTGAGAAGTCCAATGCCATT
CTGATTCTTGCAACTTACAAGTAGTCTTTTTTTGTCTAGACGCTTTCAGGACCTTCTTTT
TTCCTCAGTCAGTGTATCCAAACCTTCACAGTGATATCTTTGGGTACCT

Sequence 393

CCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCATTTATTAAGGCTTGTATATGT
TCAAGATCCAGTGAAGACTGTCTTGGGCGTGTATAATTGATCTTAACCACAAGGCTGAGA
AGTTATGTGCAGGGCTTATGATGCTACTTCCAAAGTATTAATCCTCCAGAGAAGCCTGT
AGTGTGGGATGCAAATATTTAAGTGTGACCATGAGGTGTTTTTTGTGGACCATTTTA
AAGCCAATGATAG

Sequence 394

GGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTCTTCTACCCACGCGTCC
GCACATTTTGATGGTCAGTCAATAACTTAAGCAGTTACCAAATACTAGGTATCCAAGGA
GCGAGAGGTGGGCGAGCATAAGAAACACATTTCTCATGGCACAGCTCTGCCAAAGCCCTG
CAGAATCATTTACACATAGGTCTTTGGTTAGTAGCCCCTGGCACAGAATTCTGATCTTAA
ACAAATATTGTCTATAATCAAGTAGAGCAATGCAATTAAGCAAGGACAGGTTTTG
GGGCCATGCTGAAATCCAGCCTTGCTATTTGCTGGCTGTGTGACCGTGGTTCCTTGGTC
TCATTATGCTTTGGTTCCCGTATCTATAAACGGACGTAATAATGTCTCCCTCTCATTAT
TGTGAAGTCGAAATGATGTCTGTAAAGTGCCCAACACAGTACTAAAGGGCTATT

Sequence 395

CCGCGGTGGCGGCCGCCCGGGCAGGTCAAGCTTCGACCCACGCGTCCGTTTAAGTAACAT
TCAGATTTGTGTGTGTGGAGAGGTTGTAGGGAACAGAATTGTAGGAAGGTGCTCACACCT
GTTTTGTTTGTTTGTTTATGTATATATGGTGGGTAGAAAATAAGGATTAATGAATGCA
GTAAGGTATTTGAGCACTCTTGTTTATCTTGTGTAGGTGCCAACCAATATTTTTATAGA
GATGTGGTTAAGCCTCTTGGCATGTTCAACTGTGTACCT

Sequence 396

CCGGGCAGGTCTCTTGTCTAGTATACTCAAGGCAGCCTAGTAAATTATTATTTATCTATA
CAATACTGGAAAACTTGTAGACAAAAACATGACTTGAATTGCTAAAAAAGGATTAATGAATGCA
NGANGGAGAATGAAACTTCCGGACGCNTGGGTGCAAGCTTGACCT

Sequence 397

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCGCGCGTCCGCATTT
ATTAAGGCTTGTATATGTTCAAGATCCAGTGAAGACTGTCTTGGGCGTGTATAATTGATC
TTAACCACAAGGCTGAGAAGTTATGTGCAGGGCTTATGATGCTACTTCCAAAGTATTTAA
TCCTCCAGAGAAGCCTGTAGTGTGGGATGCAAACATTTTAAGTGTGACCATGAGGTGTT
TTTTTGTGGACCATTTTAAAGCCAATGATAGGTTCTAAAGCAATCTCAACCTGAGTTAGG
TAGAATGGGTTGGTTATCTGCACTCTAGCGGCCCTTCATAGCTATTGTATTCTGGATTTC
AATTCGGCACTTTATGTATTAGCTAAAAATTTTCATGACCAGATCTTTTGAAGTATACAAA
GTAAATCTTCAAGGTGATAGTTTATCCAAGTGTAATGTGTTGCACTAGGTGAGCTTGGA
ATTTTGAGAT

Sequence 398

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGCGCATGTTGGCTGGGCTGGT
CTCGAACTCCTGACCTCAAGTGATCTGTCTTGGCCTCCCAAAGTGTTGGGATTACAGGCT
ACTAAAGCTTTTTATTTATTTCTGTGGATTTGAGTTATTGTGTAGTGTCAATTTATTTTC
ATATGAAGGATTCCTTTTGGTATTTTTGAAGAACTTCTTTATCAGAAATTAATTATCTCA
CTTTTGAATTTTAAACAATCTAGAAACGCTTTTTTTGTTTTTGAAGAATAGTTTTCT
GGATGTAAATTTTTGGTTAATTTGTTTTCTTTGAACACTGAATATTTAATCTTATGC
CTTCTGGCTTTTCAGTACCTGCCCG

Sequence 399

CCGCGGTGGCGGCCGAGGTAGCTTGAGTCGACCCACGCGTCCGTTTCAGATCCGTTTCAGA

TABLE 1
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AACGTGAGTCTCTAGCTCAGGAGATTTCCACAACCTGTCCTTAGTAACCTGATCTTATTCT
CATGTTTAAACCTTGGCAGTGGGAAGTTCTTCCTGGTATCCTGCCTAATTTACTGGAGTTG
GCATTAATGCCATTTCCCCCTAAGGCGTGGCTCTTGGACCAGTATCACCTGAGAATTTGA
TAGACATAGACCCAGAGTTACTGAGGCAGGTGCTCTGTTTTGGGGACCAGCAATCGGTGC
TTTAGCAAGTTCTTTGGGTGATAGGGTTTGGAACTACTGCTCTAAAGCATCATCTGTTT
TGACTTTGCCATGCACAATCTGAACTCACTCCCGTGAGGCCCTGCTCCTGATACTTTAA
TCGTCTGTCTCTTTTCTGCCTCTCTGTGGAG

Sequence 400

CCGGGCAGGTACAGGCACCTATAGAATTTAAAGGGGAGATTTCTTTATTTTGTATTCAAT
GTATTAATAAGATTTTAAAAACATATTTTGGAGAAATTGCTAATTAGTGTATAATCCTGA
TGCCAATTCTAAAAACCTTTTTTTTTTTTGTAGAGACAGGGTCTTATTCTGTCACCCGG
GCTGGAGTGCTCTGGTATGATCCTAGTTCACTGCAACCTCAAATACCTGGTCTCAAGCAA
TCCTCCACCTCAGCCTCCCCAGTAGCTGTCTCTATAAGCATGCACCACCACACCTGGCT
AACCTTCTTATTATTTTGGTAGAGACAGTCTCACTATGTTGCCAGGCTGGTCTTGAAC
TCCTAACCTCAAGCAAACATCCCTCCTCGTGCTCCCAAATGCTNGGATTACCAGCATTA
AGCCTTACAAGCATAAGCTACCATGGACTGGCTTTCNAAAAAATATTTGGTTTAAATTC

Sequence 401

CCGCGGTGGCGGCCGCCGGGCAGGTGGAAAGGTGGGTGGGGAGAGGGAGGCTTATTTGT
TGCTGCAGTGTAACCTAAGTGAAACCTAATNNATATGACTCAAACCTAAGGTATATTTGGTT
AGATCTAGGTGAGTTCTACTTTAGAGGAAATCCTGGNAACCTGTTGTTTGTGTAAGTTA
TAGCTGTAATTAATTTTCCCTGTATTCAAAGCCCCCAAACCTGCATTGAGTACTATGC
ATTTAGACTTCCTTAGGCAAAGTCAAGGCAACAAGCTGATGATTCTAAGCTATTATTCAA
GGAGTATCTACCATCATAAAGGTGGTTTAGTCATATAGATAATATCAATCAATAATACAG
GAGATGGCAAAAATTTTTGTGAAGAGCCAGATAGTANCTGAGTATGATGACCCCTAATC
TCAGCACTTTGGGAGGCTGATGGGAGAGGGTCATTTAAGACCAGGAGTTCAAAGACCAGC
CTGGGCAACATTAAAAACTCCATTTCTACCAAAAACTTTAAAAAAATTAGC

Sequence 402

GCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGGGAGGACCTAGGCAACGGCC
TGAGACTCCGAGACTCTATGTTGAAGATGCCTGGACTAACCTACTGAAGATACGTGGTTT
TACCAACAGCCAGCACCAATAGGAAGATATGAATGAAGCCATCTGAGACCAGCCATCTGG
CAGCCAACTGCCAACTGACTGCAAATGCATGAATGATCCCACTGACACCACGTAGAGCA
CAAATGAGTTGCCTCCACTGAGCCCAGCCCAAATGTTATCCTATAAAATCATAAAAAACA
TAAACAGTTGTTTAAAGTCAAAAAAAAAAAAAAAAAAAGTGCGACCTGCCCG

Sequence 403

TACTATAGGGCGAATNGNAGCTNCCCGCGGTGGCGGNCGAGGTATTCAACAAGGGCCCTG
AGAGAGGGACAGGCAGCCCCTGTGAATCTTGCTGTTGAGCAGAGACAGGAGTCAGCACGT
GTGAGGGCAGCAGGGAAGTCTTCCTGGAGGAGTGAGACCTGGCGATGAGGAGGCACGGCA
GGGAGGTGGAACAGGCAGGAGAGACTCTTCAGGAATTGAGGAGATAGAATAGAGGACACT
AAAGCCTTAGAGAGGGCCAGGGGTGGTGGCTTGGCAGGATCATCGCTTGAGGCTAGGAGTT
TAAAGCAGCCTGGGCAACATAGCGAGACCCCATCTCTAAACACAAAAAATAAAACCTG
CCCG

Sequence 404

CCGCGGTGGCGGCCGAGGTCAAAGCTTCGACCCACGCGTCCGTGATGCTGGCTTCCCGGT
CAAAGCTGAGGAGTTTGTGGTGCTTCTCAGGNACCTTCTGTCACGGAAACCATTGCACC
CAAAATTGCAAGACCTTTCATAGAGACTTTCCTCAGGCCCTCAAGAGTATTGAGTATCTG
GAGGAGGATGCCGAGAAGTCCGCACAGGAGGGGGTGGTGGGACCACACACTGATGCTCTG
TCATCAGACTCTGAGAACATGCCGTGTGATGAAGAACCATCCCAATTAGAGGAGCTAGCT
GACTTCATGGAGCAGCTTACACCAATTGAAAAATATGCTTTAAATTACCTGGAATTATTC
CATACTTCTATTGAGCAAAAAAAAAAAAAAAAAAAGTGCGGCCGCTCTAGAAGTAGTG

Sequence 405

TABLE 1

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TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCC
GGAAGTTTTTCATTCTCCCTCTTTTTTTTTTTTTTTTTTTAGCAATTCAAGNCATGTTTT
TGTCTACAAGTTTTCCAGTATTGTATAGATAAATAATAATTTACTAGGCTGCCTTGAGT
ATACTAGACAAGAGACCTGCCCCG

Sequence 406

TNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTAC
CTGAAAATGCTTATTCTAGCTTCACATTTGATTGTTTGGCTAAGAAGAAAATTATTTATT
AGACTTAATTTTCCTCACGAGTTTAAAGATTGCTTCAGATCTTAACTTCTAATGAGGAA
AGCTGAGAAGTCCAATGCCATTCTGATTCTTGCAACTTACAAGTAGTCTTTTTTTGTCTA
GACGCTTTCAGGACCTTCTTTTTCTCAGTCAGTGTATCCAAACCTTCACAGTGATATC
TTTTGGGTACCT

Sequence 407

CCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTCTCTTATATTGAAGTAAAATTTA
AAATTTAATACTTTTTATTTTTTAAAGCATGTATGGCATCATTTAGTCTTATTAAT
CTCTCTGCATCCATTCACCCATCCTTCTTTTTGTGTGTGTGTGTAGTGGTCTCTGTGAGA
GGGTTCATTAATGTCAATCCTGATCATTCTTCTCCTCAAGAGATGTCAGTAGATTTGTTTT
TTTTGCTTTGGACTTTTATGAATTGATTGAATTTTTATGCCAATTATTTTTAAAGTATTA
CATAGAAGAACAAATGGACAGAAAAATTTAAATGCAATCAAATCTTGTTGATTTTGAAGT
ATAGGAAATAATCTTTTTTTTATTATACTTTAAGTTTATAGGTACCTGCCCGGGCGGCCG
CTCTAGAAGTAG

Sequence 408

CCGCGGTGGCGGCCGAGGTACTATTGACTAAAGTCAGTTGGGGGAGAGAGAGGCGGAAGT
ATATTACTTTTTATGCTTGGTTATACTAGAGAACAAATAGAACTGACTAAAGAAACATTA
GATCAGTGGTTCAGAGTATTGATATCTGGGAGTCCCAGCAACAGTCTGAGGAGGTTCA
TGAGTTCAGAATATTTGATAATAACACTAAGATGGTATTTACTCTTCTAACTGGGTAGA
TATTTGCACTGGT

Sequence 409

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACAAGTCGACCCAC
GCGTCCGCTTCAGAATATCCAATTCATGTGAACACAGGAAATTATAGTTTAGATATTTT
TAAATGATTTGCCTGTCACCGTATAACACAAGGGTGTGATGACCAAGCTAGATCTCTTTA
CCATATCATTAAATAAAAGTCAAATTTTAAATTTGTGCCAATTTGGCTGGGTGTGGTGGC
TCATTCCTGTGATTCCAGCACTTTGGGAGACCT

Sequence 410

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGACCAGTGCAAATATCTACCCAGT
TAGAAGAGTAAATACCATCTTAGTGTTATTATCAAAATATTCTGAACCTCATGAACCTCCT
CAGACTGTTGCTGGGACTCCCAGATATCAATACTCTGAGAACCACTGATCTAATGTTTCT
TTAGTCAGTTTCTATTTGTTCTCTAGTATAACCAAGCATAAAAGTAATATACTTCCGCCT
CTCTCTCCCCCAACTGACTTTAGTCAATAGTACCT

Sequence 411

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACGCGTCCGA
TCACTTTTTTCATTGATACCTTATTAGATAAAACATTAGCCCCCTAGAGTGNNNTGTGAA
GGAAATATGCCTAATAAGAGATGATAGTTTTAGCAATAAATGAGCATTAGAAGTATTATT
TATTAATGAAATGAACTGGTGGTCTGAAAGTGATGATAAACAGACAAGTGTGGAAAATGA
ATTATTAATAATCCATGGAATTCCTTTTGAAGTTTATGAAGTACCTGCCCCG

Sequence 412

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGC
ATTTATTAAGGCTTGTATATGTTCAAGATCCAGTGAAGACTGTCTTGGG

Sequence 413

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACAACCTTGATGCTT
TTGGCAGGAATTACAGAACAACCAATGCCATTCAAGTTGTGGAGATTATACTNGCAGGTG
AACTCGTAAAGAGAAGATTCTGGAATGCCTATATCTGAAAGCTTGAGTCGACACCTN

TABLE 1

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Sequence 414

CCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGGAATGAGTGAGTGCAGAACTGGC
AACCAGAAGACAGGAACAAGGCCTGGGAATGGAGCGGAAAGGTAGCTGCTATATATAGTT
CCTTCAGCCAGTAACGATTAGAGCCAATAGCCATCTGGATGATGAATGGCTCCTAATTGC
CTTAAATTACGGCAGTTAGCTAAGGGTTTCTGTTGCTACATGGGTACCGTAGGCCGCTG
CACCTGCATAACTGTCCTCAGGCCTGCGTCCCCTGAGTCTCAGCACTTGGGCCTCCACC
TGCCCG

Sequence 415

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTCCCAAAGTGCTGGAA
TCACAGGAATGAGCCACCACCCCAGCCAAATTGGGCACAAATTTAAAATTTGACTTTTA
TTAATGATATGGTAAAGAGATCTAGCTTGGTCATGACACCCTTGTTTATACGGTGACAG
GCAAATCATTTAAAAATATCTAAACTATAATTTCTGTAGTTCACATGAATTGGATATTC
TGAAGCGGCCCCNTGGGTGCACTTTGTAACTGCCCGGGCGGCCGNTCTAGAAGTAGTGG
GATCCC

Sequence 416

TATGGCGAATTGGAGCTCCCCGCGGTGGCGGGNCGAGGTNAAGCTTCGACCCACGCGTCC
GATTATTCTCTCCATTTAGGCTATAAATCTTCAGTGTAGGGTGTTTCTAATGTCNTATT
CTTCCAAAAAAAAAAAAAAAAAAGT

Sequence 417

CCGCGGTGGCGGCCGAGGTACTCTTGATGTCATAAGATTAGAAAATGTGGTTAATTGTCA
TCAACCCATTAAGTTCTTAAATGTCATTGAATGGAGTCCTTGTCATGTTACAGAGGAGCG
TAAAATTGTGGTTAAACATTTTTTTAAAGATTACATGGTAGAGCCACAGTTTGTTATGCA
GAAGGAAAAATTTAGCAAATATTATTTTGCTTAATAGCCTTTAAAAAATCGTATAAATTTG
ATTTGTAGTTTTATCCCAGAGTCATTAGATTTTTCCAAAAAAAAAAAAAAAAAAGGT

Sequence 418

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTGCCAAAGCCT
TAACTTAGATTGTTACTTATGTTTCTAAATCTGNNGAAGCACATTTCTTTNTNTNTNT
TTTCTTTTACTGTTAATATCCTTATTCTCTATTTTACCAGTGGAGAATGNTTAGTATTAA
TTTCCATTTANCTCANGATTCAAGAAATGCAAAGTGCTATTTTTATCAAATTTCTGAAAG
CCTACTGTCTTCTGNTTGGAAAGTCCACAACAGCTCTTTAATTTCTTAAGCCCCACTT
TCCTCATCAGCAAGTTGGTGTGGCAATGGATCATAATAGGTTGCTGGGAGGATGAAGTGA
GCGGACCGCGTGGGTCAAGCTTGACCTN

Sequence 419

CCGCGGTGGCGGCCGCACTTTTTTTGTATTACTTCAACTTTTAAAAATCTAAAGAAAAC
CATCATCTCAGACCAGCATTTCCGGACGCGTGGGTCAAGCTTGACCT

Sequence 420

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTGTCAAACATCT
CCCTCGTCCGGATCCTTCTAACGCAGGAGTCTCAGACGCAAATGCCGGCAAGGGCCAGGC
AGGTGATGTAAGATGCGTGGAGCAGATGCCAAGCCACAGGGAGTGGTGGAGACTGGGGTG
AACTGGAAAGCACCT

Sequence 421

CCGCGGTGGCGGCCGCCCGGGCAGGTACACAAACCAGATGTATGCAATGATGCCAAAAGT
CATCTCAAATTTCAAGCTGACCTAGTGCAACACATTTACACTTGGATAAACTATCACCT
TGAAGATTTACTTTGTATACTTCAAAGATCTGGTCATGAAATTTTTAGCTAATACATAA
AGTGCCGAATTGAAATCCAGAATACAATAGCTATGAAGGGCCGCTAGAGTGCAGATAACC
AACCCATTCTACCTAACTCAGGTTGAGATTGCTTTAGAACCTATCATTGGCTTTAAAATG
GTCCACAAAAAACACCTNATGGTCACACTTAAATAGTTTGCATCCACACTACAGGCT
TCTCTGGAGGGATTAAATACTTTGG

Sequence 422

GGTGGCGGCCGCCCGGGCAGGTGTCAAACATCTCCCTCGTCCGGATCCTTCTAACGCAGG
AGTCTCAGACGCAAATGCCGGCAAGGGCCAGGCAGGTGATGTAAGATGCGTGGAGCAGAT

TABLE 1

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GCCAAGCCACAGGGAGTGGTGGAGACTGGGGTGAAGTGGAAAGCACCT

Sequence 423

TNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACATAATATAC
AGAGGTATAATCTGTAACATCAATAATGTAAAGTGGGGAAGGGCAAGGTGGAAAAGGAGT
AGAATGCTTGTATGTGACTAAAATTATGTTGGTATCAGTTTAAAATATATTATTATACT
TTAGAATGCTATACCCATTCCCACAGTAATCCCATAGTAACCAAAAAGAAAATATCTGT
AGGATACACACAAAAGAAAATCAGAAGTAGATGCAAACTTGTCCTACAGGAAAAAAAAA
GCTATCAAAATAGAAAACAATAATGGAGAAAATAAGACACCAAAAGCTATAAGACTCACA
GAAAATAAATAATAAAATGGCAAAAAGAAGCGGACGCGTGGGTGGAAGACCT

Sequence 424

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAAGCTTCGAC
CCACGCGTCCGATTTGGCAGAAATTCAGGGTAATGTCAAGTTCTTAAATCTGAGAGAGA
CAAGATCTTCTTCTTTATGAACAGGCACAGGAAGAAATTACCGACTTCGACGAGAAAT
GATGAAAAGCTGTAAGAGTCCTAAATCAACAACGGCACATGCTATTCTCGGCGAGTGG
GACTGAAAGAGATGTANCCTTTACTGATTTACGAAGAATGACCACAGAACGAGATAGTCT
AAGGGAGAGGCTAAAGATTGCTCAAGAGACAGCATTTAATGAGAAGGCTCACCTGGAACA
AAGGATAGAGGAGCTGGANGNCCNTCCCGGGGGCCGGGNCNGCCCGCCCCNNGCAGGGT
CANATGATTGCAGAATTTATGTGATTCTTGGGGT

Sequence 425

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTACTGAGCCACTTA
CAATTATTTCTGAAAAATCTCAGAGAACTGAGGATAGATCAGAAAATTTAAAGAAAGCAA
ATACCAAATTTTCAAACCAGGATAGGAAGTGAATACCTTGTAATACACTTTGTTAAGTG
ATGATAATTCTGAGTAAAAATTTAGAAGATTTTGAGAAAAGCATTTGAACTTCTAGGGGC
CAATAAAATACCATGCAGAAGAATGTTTAAAAAGTCATGCCAAATTTGAATCCATTTGAT
CCTCAACCTCATCAGATGTTATATGCCAACTACTTATTTGGCTTAGATAATAATCATA
TAGAATGAAACTTTCCACAAATAGACTGTGGTCACTGGCTG

Sequence 426

CCGCGGTGGCGGCCGCCGGGCAGGTCAAGCTTCGACCCACCGTCCGGCAATGATGAGCA
AAAACAAGTTTGGTCCCCCTGTTATAGNGCCTGGTAAAGGTTTTGTTGTTGTTTGCAG
GGGTGGGGGAACCAGGAAATCAGATCATCACAACAATATATACTTATCTGTAAGTATGGT
AACTGCTACAGCAAAGGGGCGTATCATACTATTAGCATACTAAGTTTCACTTAAAGAGGT
CGGA

Sequence 427

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTGTCAAACATCTCCCTC
GTCCGGATCCTTCTAACGCAGGAGTCTCAGACGCAAATGCOGGCAAGGGCCAGGNAGGTG
ATGTAAGATGCGTGGAGCAGATGCCAAGCCACAGGGAGTGGTGGAGACTGGGGTGAAGTG
GAAAGCACCT

Sequence 428

TANGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTCAAGCTTCGACCCAC
GCGTCCGTGATAACTTCTCCTAAGTGCCAGGCATTGTATTACATGTTGGGAGCACAAAGA
TGAATAATAACAATAGGTTACAGAAAAGATGAATTGATTGAGAGAAAAAGAACCCCTCCA
GGAGCCCTCAGCGTAGTAGGGGTTGGTGTGGAGGGTGGAGGAATGAAAAGGCCCTGA
AATGCAGGCAGAGAAATGATGAAACAATTCAGGGGCTGTGGTGAAGTTAAATGAATATCT
TTACAGCAGCCTCNAAGACTGATCAGGTTACTATACCCTCTCTTNTGTCCACNGTGCATT
TNAA

Sequence 429

CCGGGCAGGTCAAGCTTCGACCCACCGTCCGGCAATGATGAGCAAAAACAAGTTTGGTCC
CCCTGTTATAGAGNCTGGTAAAGGTTTTTGTGTTGTTTGCAGGGGTGGGGGAACCAGG
AAATCAGATCATCACAACAATATATACTTATCTGTAAGTATGGTAACTGCTACAGCAAAG
GGCGGTATCATACTATTAGCATACTAAGTTTCACTTAAAGAGGTCCGA

Sequence 430

TABLE 1

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CCGGGCAGGTACACTCCAGCTCCTCTATCCCTTGTTCCAGGTGAGCCTTCTCATTAAATG
CTGTGCTTGAGCNATCTTTAGCCTCTCCCTTAGACTATCTCGTTCTGTGGTCATTCTTC
GTAAATCAGTAAAGGCTACATCTCTTTAGTCTCCACTCGCCGGAGAATAGCATGTGCCG
TTGTTGATTTAGGACTCTTACAGCTTTTCATCATTTCTCGTCTGAAGTCGGGTAATTTCTT
CCTGTGCCTGTTTATAAAGAAGGAAGATCTTGTCTCTCTCAGATTTAAGAACCTTGACAT
TACCCTGAATTTCTGCCAAATCGGACGCGTAGGTCTGAAGCTTGACACCTCGGCCGCTCT
AGAACTAGTGGGATCCCCCGG

Sequence 431

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACGATTTAAATCTC
CTCCTCTACAGCGGTCTGAGTATTGAAGCAGGTCTTTGAGGATGGGCNGGAATTAGAGTC
ACCAAAGGAGGAATACCCTCACAGTTTTCTGCAAGAGTCTCTTGAACAATGGATGGTGT
TTATGGGTCTGGGGAAGACCCCNCGCCCCAAATGTTGCTCCCT

Sequence 432

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACACAAACACACACACAA
AGTTTAATATACTTTTTAAAAAATTTTATTGTATTGTTTTCTTGAAATAGGGTCTTGCTA
TGTTGCCTAGGCTGGTCTTGAACCTCTGGGATTAAGCAATCTCCCACTAAGCCTTCCA
AAATGCTGGCATTACAGGTGTGAGCTACCACAATCAGTCTCTTAGATTTTGTTTTTTAAG
AACAATTCGAAGTTTACTGCAAATTTGTGAAGAACGAACAGACTGTTCCACATATCCCT
TTTTCTTTACACACCGGACGCGTGGGTCTGAAGCTTGACCTGCCCCG

Sequence 433

CCGCGGTGGCGGCCGCCCGGGCAGGTCAAGCTTCGACCCACGCGTCCGGCTTGAGGTGGG
TTTAGGAAACATTTGGTATCTNTGGCAGGGACAGATGTTGACCTGGCCGGTCGGCAGCTT
TTACAAACCTAAGGACTTCAGGGTCCGGTTGCGCATGAGGACCGGGGAGGACAGAGCTGT
TTGCAATAGGTGTGGGCTTTTATAGCATTGTGAGCATTTCACGTTAGCGTAAGTGTGCT
GCTGTGCAGGTGGTCTCTGGGGCTTACAATCTTCCCAATGTTCTTCCCCACCCCTCCCA
CCATTCTGGTGAACAAGCCTCTTGGGATTCTTTGAAAAAAAAAAAAAAAAAAACCT

Sequence 434

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATAATATACAGAG
GTATAATCTGTAACATCAATAATGTAAAGTGGGGAAGGGCAAGGTGGAAAAGGAGNNGAA
TGCTTGATGTGACTAAAATTATGTTGGTATCAGTTTAAATATATTATTATAACTTTAG
AATGCTATACCCATTCCCACAGTAATTTCCCATAGTAACCAAAAAGAAAATATCTGTAGGA
TACACACAAAAGAAAATCAGAAGTAGATGCAAACTTGCTACTACAGGAAAAAAAAAGCTA
TCAAAATAGAAAACAATAATGGAGAAAATAAGACACCAAAAGCTATAAGACTCACAGAAA
ATAAATAATAAAATGGCAAAAAGAACGGACGCGTGGGTCTGAAGACCT

Sequence 435

CAGGTACAGGCACCTATATGAATTTAAACGGGGAAGATTTCTTTATTTTGTATTCAATGT
ATNAATAAGATTNTTAAACATATTTTGGAGAAATNGCTAATTAGTGTATAATCCTGATG
CCAATTCTAAAAAACCTTTTTTTTTTTTGNAGAGACAGGGTNTTATTCTGTACCCGGGC
TGGAGTGCTCTGGTATGATCCTAGTTCACTGCAACCTCAAATACCTGGTCTCAAGCAATC
CTCCACCTCAGCCTCCCCAGTAGCTGTCTCTATAAGCATGCACCACCACACCTGGCTAA
CCTTCTTATTATTTTGGTAGAGACAGTCTCACTATGTTGCCAGGCT

Sequence 436

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTATTCAACAAGGGCCCTGAGAG
AGGGACAGGCAGCCCTGTGAATCTTGCTGTTGAGCAGAGACAGGAGTCAGCACGTGTGA
GGGCAGCAGGGAAGTCTTCTGGAGGAGTGAGACCTGGCGATGAGGAGGCACGGCAGGGA
GGTGGAACAGGCAGGAGAGACTCTTCAGGAATTGAGGAGATAGAATAGAGGACACTAAAG
CCTTAGAGAGGCCAGGGGTGGTGGCTTGGCAGGATCATCGCTTGAGGCTAGGAGTTTAA
AGCAGCCTGGGCAACATAGCGAGACCCCATCTCTAACACAAAAAATAAAACCTGCCCG

Sequence 437

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCACGGTACCACGTAGCAAC

TABLE 1
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ATATGAGTATTTCTCTAGATAACTTTTTTTTTGACAAGGTCTCACTCTGTTGCCCAGGCT
GGAGTGCAATGGTGCAATCTTGGCTCACTGCAGCCTTGACCTCCCTAGCTCAGCTGAAC
CTCCCATCTCAGGACACCATTGCCTCCACTGCCCATCCTGCATCTGCCTGCCTACCCCAA
AAGTGTTGAGAATACAAGCATGAGCCAGAGCCACGGAACCTGGCCTCTAGAGAGACTTTC
TATTTTAGTTTTTCTTCTCTTATTTGTGAAGCCTTGAAAAAACTACTGTGGTTTATTTA
GATTCTGGTTTGTGACTTTTTTAAATAAACTTTTTATTTTGAATAAATTTATGTTTGA
GAATAGTTGCAACATAATAAAGTGAGTTTTTCATAAACGCCTTACCAGTTTCCCCTGNTG
GTTAACATTTTACATCACCATGCTGTTGCATTGGTCAAACTA

Sequence 438

CCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCATTTATTAAGGCTTGTATATGT
TCAAGATCCAGTGAAGACTGTCTTGGGCGTGTATAATTGATCTTAACCACAAGGCTGAGA
AGTTATGTGCAGGGCTTATGATGCTACTTCCAAAGTATTAATCCTCCAGAGAAGCCTGT
AGTGTGGGATGCAAACTATTTAAGTGTGACCATGAGGTGTTTTTTGTGGACCATTTTA
AAGCCAATGATAGGTTCTAAAGCAATCTCAACCTGAGTTAGGTAGAATGGGTTGGTTATC
TGCACTCTAGCGGCCCTTCATAGCTATTGTATTCTGGATTCAATTGGCACTTTATGTA
TTAGCTAAAAATT

Sequence 439

TCGAGGCCGCCCCGGGCAGGTACACAAACCAGATGTATGCANTGATGCCAAAAGTCATCTC
AAAATNGCAAGCNGACCTAGTGCAACACATTTACACTTGGATAAACTATCACCTTGAAGA
TTTACTTTGTATACTTCAAAAGATCTGGTCATGAAATTTTNAAGTAATACATAAAGTGCC
GAATTGAAATCCAGAATACAATAGCTATGAAGGGCCGCTAGAGTGCAGATAACCAACCCA
TTCTACCTAACTCANGTTGAGATTGCTTTAGAACCTATCATTGGCTTTAAATGGNCCAC
AAAAAACACCTTATGGTCACACTTAAAA

Sequence 440

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCTAAACTTAAAGTA
TAATAGTAATAATAAAAAAGAGGTGCTTTTCTCCTAAGTCAACATTTTAGAGGAAAAGA
GTCAATTCAAGCAATTATCACATATGTGTAAGTGAAGCACATATGTGTAAGTTTCAAGA
GTGATTAGATGGTCTGTTGTCTTTGAAGTGATAGTCAAATATCAGGTGTGTTCTAGGGAG
GTTGTGTAAGACTTTTGCTTGATTCTCCCGGACGCGTGAGTCGACTCAAGACCTGCCCG

Sequence 441

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACG
CGTCCGATTATTCTCTCCATTTAGGCTATAAATCTTTCAGTGTAGGGTGTNTCTAATGTC
ATATTCTTCAAAAAAAAAAAAAAAAAAAGT

Sequence 442

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTTACAAGTCGACCCACG
CGTCCGCTTCAAGATATCCAATTCATGTGAAGTACAGGAAATTATAGTTTAGATATTTTT
AAATGATTTGCCTGTCACCGTATAACACAAGGGTGTGATGACCAAGCTAGATCTCTTTCA
TATCATTAATAAAAGTCAAATTTTAAATTTGTGCCCAATTTGGCTGGGTGTGGTGGCTCA
TTCCTGTGATTCCAGCACTTTGGGAGACCT

Sequence 443

CGCCCGGGCAGGTACACAAACCAGATGTATGCAATGATGCCAAAAGTCATCTCAAATTC
CAAGCTGACCTAGTGCAACACATTTACACTTGGATAAACTATCACCTTGAAGATTTACTT
TGTATACTTCAAAAGATCTGGTCATGAAATTTTAGCTAATACATAAAGTGCCGAATTGA
AATCCAGAATACAATAGCTATGAAGGGCCGNTAGAGTGCAGATAACCAACCCATTCTACC
TAACTCAGGTTGAGATTGCTTTANAACCTATCATTGGCTTTAAATGGTCCACAAAAAA
CACCTCATGGTCACACTTAAA

Sequence 444

ACNGNCAGGTACCAAGATTAAGGACAGAGTCCCTCCATTGGTCATTGATTTGNAAACCA
AAATGTATCTGTGACAGGTATTAATCCGGACGCGTGGTCAAGACGAAAGGACACGAGAA
ATANGGACCTANNCCGCTCTANAAGTAGGNATCCCNNNNCTGCAGGAATTCGATATCA

Sequence 445

Sequence 446

Sequence 447

Sequence 448

Sequence 449

Sequence 450

Sequence 451

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGCTTCGACCCACGCG

TABLE 1
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TCCGATTATACCCTAAAAAAGTAGAAAGATGGAATAATTAGGAGTAAAATTAGTGAAATG
GAAAGATATGTTATAGAAAGGACCAAGAAACGCAAAAGTTGGTATTTGAAAAGACTGAAA
AAATTCATGAACCTGTGAAAACAGTGGTCAAGAAGAAAAGAGAGGCATATTTTGATCTCT
GTTTTACATGTTACTCAATGTTTCATTGCTGCCTCCCTTGTCCATAAAGTGCCTTTAGTGT
GTATGTTACTTTAGATTATCTTGGTGTCAAGCTTTACTCAGCAAAGAACCACTTTGT
TGTCTACTTTAAACATAAGTTATCTTTAAAGAATGGGTATCTTTTATAGTTCCATATT
AATGGCGAAGAAACTGCAGGTAACAGTGCCTTACCAGCTGGGTTTTGCTAACTTTTCTC
Sequence 452

CCGCGGTGGCGGCCCGCCGGGCAGGTTTTATATTTTTTCTCTTTAAAAAATAATTTG
GTTTTGAATATTAATTTACATATTTCTAAGTTAAATCAACATTCGTAGAGGAATTATCA
AAAAAACTAGTAAGTCTGAAAAAAAACCATATTTTATATTCTGAGGTCCCGGACGCGT
GGGTCGAAGCTTGACCT
Sequence 453

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGCAGGTACCCAACACAACTA
TTCAATAAAGTAATCTGCTTTAAAAATAAAACACACTGAAAGGCCGAGGCAGGTGGATCA
CCTGACATCATTAGTTCAAGACCAGTGTGGCCAACTGGTGAAAATTAGTCTCGACTAAA
AATCAACATTAGCTGGGCGTGGTGGCAGGCGCCTCTAATTCCAGCTACTCAGGAGGATGA
GGCAGGAGAATCACTTGAAGCAAGGAGGTGGAAGTTGCAGTGAGCTGAGATCGTGCCATT
GCACTGCAGCCTGGGCAACAGAGTGAGACTCCGTCTCAAAAACACCACCACCAACAAAAT
AAACACAACAGAATTATTCTGCAAATACAGATATTGGAGTAGCTGAGTTCCATCTCAAAT
TTGACTATGCAGGTTGACAGGTGATCTTGGCAAACACTATTATCCTTTCTGAAGTTCAACT
TTTTACCAAATGGTATTGGGATACAACACTTGCTCTTGCCTATCTCACATGAATTATCC
ATTTTGGACAACCTTGGTAACTATA
Sequence 454

CCGCGGTGGCGGCCCGAGGTCCCAAAAGATATCACTGTGAAGGTTTGGATACACTGACTG
AGGAAAAAAGAAGGTCTCTGAAAGCGTCTAGACAAAAAAGACTACTTGTAAGTTGCAAGA
ATCAGAATGGCATTGGACTTCTCAGCTTTCCTCATTAGAAGTTAAGATCTGAAGCAATCT
TTAAACTCGTGAGGAAAATTAAGTCTAATAAATAATTTTCTTCTTAGCCAAACAATCAA
TGTGAAGCTAGAATAAGCATTTTCAGGTAAAAAAAAAAAAAAAAAAGT
Sequence 455

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCTACAGCATCCTGATAA
CAGCCTCTGCCCTGGGAAACAGACTGTGACCATGCATTTCTAGTCCAGCATATCCTATCA
GAAGACCAAATGGCTTCATCAAAAACAGAGTGACAACCTCTTCTCTTTGCCTCTTCTGTG
CTTGTTAACAGGCAGCATTGGGGCAGGAGAGCCTGCAGGCCTTTACGGGCTGCTTGAGTT
CTCACCTGTTTGTCTGAGCTCTGATTCCTCTGCCTGTAAAGCGTAAAGGAGATGTGCTGA
GTGGAAGACCTCTAAACAGGCAGCCAGGAAGCCAGATTTTCAAGTCCATCTCTGCCTCTA
ACTGGCAGCTTTGCCTTGGGTAAATCATCAAGTGGGCAATAGTTTCTCTCCTGTAAAAGG
AAAAGATTGGGTTTAAGATTGTTTCTGAAGTTCTCTCTAGATTTAACCTGGAAGGAGTTG
AAATTGCTAACC
Sequence 456

CCGCGGTGGCGGCCCGCCGGGCAGGTACAACATTTTACATTTCCAGGGACTGCAAAAATGT
TAGTTCCTTCCCCCATCATTTAGTTTGAAAATTCTTAGATAATTCTTTGCTGGTAAATTC
CAACAGAATAGTTAGCACACAGGTTCCACACACACAAGTTCTAGATAGGAATCTGAAGCA
CCACAATGAAAAGAACATTTAACATCTTTTAAAAATGTTTAAATGTTATCAGAAAGATGTT
TGGTATATGTGTTCCATGCATGCTCCTGCTGTTCTATTTGAAAAGAGTTTACAGT
TATCTGTTGTCACCATATTGTAAACGGACGCGTGGGTCGAAGACCT
Sequence 457

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGCAGGTACAATAAATAGCA
TTCCCACGGTGACCACAAGTCTTGAATCAGTTCAGGTGTCGTGCGTGGCCGTTGACACC
GCTGCCTTCTGACGGTAAATGTATTGTAGAATTCATGTTGTATCAGGCTTCAGTTTCCTC
ATTCTAAAATGAGAGGATTGGATAAGTTAGTAGTTTCTAATTTTACTTTTAAATCAGTGG

TABLE 1
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CATCTCCCATTATTTTTCATTTGAAATAAACTTTTGAATTTTATCTTCTACCTAAATA
ACATATTTTGTGTTTATGTTTCAAGATGAAGCTCACACTGAGTTGGAAAAAGGAAAAAGC
AAAGGATCAAAGCTGGGGGAAAAACTGGACCATGTGCTTCACCTCATGGTGCCAAATAA
AGAGAAAATGGGGAGAAGATAGGGACAGATAAAGATCTATTTGCTCGGATTGNGCTCTCA
TCCTTGGCAACATGTTGACAATGCCCTGGAAATA

Sequence 458

CCGCGGTGGCGGCCCGAGAGCTCCAGGACGAAGGTATAAACACAGCAGAGGGCAGAGCCT
GATTTCAATCAGGGGCTACTCTAAGAAAGGCAGGAACTAGATAAATACATTTAAAAGAA
ATTCCTCAGTGGCAGGGACAGTAGAGCAGCAGGGGGAGATCCCAGCACGGACAGGTAAACA
GTGTGATGTGGCAGAAAGGCTTTGGTTGCAAGTGGAGAACAGATGTCTCTGGCTGCCTCT
GGCAGCTGCCTCCTTCTGGGCCTTGACTTTTCAAAGCCAGGCCAGGCCTCCCCACCCTG
GACCACCTGTAGCTGGTTCAGAAGGCCCGAGGCTGGGCTTCATAGATGAAGACACAGCTG
ACTCAAGTCTCTGGCTCTGTGGCTCTTGGCCACCTGCCGCTCCCATACGGTGTGTTCT
CAGGTCAACCCCTCTTCTCCATTCTACTTCAATGACCTCAGGTGAGGCCCTTGCCACTT
CTCTTCTGGACAAAGATGACAGCCCTTCACTGGTATCCTCGTCTNCAACCTAATTTATNC,
TTCACAGTGCTGGCAGAAGTGACATCTTTTAAACACACAACGACCCCN

Sequence 459

GCGGCCGAGGTCCGCACTTTTTTTTTTTTTTTTTTTATTTTTACTCCAGAATTTTCCTTTA
ATATTTAGGACTCCAATCTTTACTTACAAAATAGCTTTTATTTACGTGCACATGATCGTG
GTTTCAAATTTTCTAAGCACTATGCTAAATTTGTCATCAAAACATAACAGATTCCCATC
TTACAAACATAGTTGCTAGTTGAATGAGTAAAGAGATTTCAAATTTCAATTCAAGGAGG
CATGTCTAAAAGACCAGACCATTCAATTTGATGAAATTGTAAATGCCGATCATCCAACCTA
ACAGGAAGTGCACATTTGTTCTTTCTAGTTAGAAAAAATAA

Sequence 460

CCGCGGTGGCGGCCCGCCCGGGCAGGTCTTCGACCCACGCGTCCGTGATTGCCTATTGTT
TGTTGATTGACTGATTTATGCCTCTAAGAGGAAGTATCTTTTGATAATATTAATAAGAT
GTCCTAATACAAAAGTATAGAGTTTCAAGAAATAAAGAATCTCCTGGCCAGGCGTGTTG
GCTCACGCCTTTAATCCCAGCACTTTGGAAGGCTGAGGTGGGCGGATCACGAGATCAGGA
GATTGAGACCATCCTGGCTAGCATGGTGAAACCCTGTCTCTACTAAAAATACAAAAAAA
TTAGCCCGGGTGTGATGGCGACCT

Sequence 461

CGCGGTGGCGGCCCGCCCGGGCAGGTACAGAAAGGACAAATACATCAGTAGAAAAAGAAGA
CAATATAAGGGCAGATTGAAATATATACGTGAACGTACAAAAGACCAATTACTGCCATTT
CAATTCAATGAGGAAATAATGATGTATTTAATAAATAGTGCTAGAATGCTGCATTATCTG
TCTAGGATGAAAAAAAAAAAAAAAAAAAAAGT

Sequence 462

CCGCGGTGGCGGCCCGAGGTGGAATGTCTGTTTTACAAAATTTTGTATTTTCTCCTAAT
AGTATGAGGTNGAAGAAATCTACATCTTCTCAAGTGAAGCTTATGATTAAGTCTGATGAGTT
TTCTTGCTATTCTCAAATCGGAATNTCCAGACCTGGCTAGAACTAAAGTCTAAGCCCAT
TCATTAAGTCTTGAATTTATTTACTTTNGCCAAGAACAGCTATATAAAATTAGATTCTT
CCTGGTATAAAATTGGGTGTTTTCTTAGATATTNGCTATCAAAAGTCATTTTTCTTGAA
ATCGGACGCGTGGGTNGAAGCTTGACACCTGCCCGGGCGGGCGGCCGCACTTTTTTTTTT
TTTTTTTTT

Sequence 463

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCCGGGCAGGTACTGAAAG
CATACAACTGAGGGTTCACGGATTTCTAAGAAATGCATTTCCCTTGTCTATGTTTCATCAG
CCTTTAATACTTTGGCTACAAGGCATATCAGAGAAAGGGAGGTTAAATTGGGTAATGACA
AAAGAACATATGTAAGTCTGGAAATAGGAAAAATGTTCCAGAAATGGGATCAATGTGCCA
GCAATAAGCATAGTTTCATTTCAATTTGAAATTCAGTTAAAGAGCCCAATAAACAGTTCCA
AACCGGACGCGTGGGTGCAAGACCT

Sequence 464

TABLE 1

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ACTATNGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTCGACTCAAGCTTTCAG
ATATAGGGCATTCCAGAATCTTCTCTTTACGAGTTCACCTGCTAGTATAATCTCCACAAC
TTGAATGGCATTGGTTGTTCTGTAATTCCTGCCAAAAGCATCACAAGTTGTACCTGCCCG

Sequence 465

CCGCGGTGGCGGCCGAGGTAATAGCTAATGCATGCAGGGCTTAATACCGAGGTGATGGGA
TACTTCATGCTAACTGGGTGTTCTTAGTGTAATAATTGACTGCCTGCTCCCATGTGGCC
TCACAGAGTCATAGCTTCTTGCCCCAATGTTTTCTGGTTTTCTGTGGAGCCATACAGA
ACCATAAAGAGAAGTTGTTGAGAAACCGGTTTGACTTTCAAGTCTGATGAGGAGCCTGGT
TTCCATGAGATTTTCAGCTAAGTTAGCATATTTTTAAAAATTTCAAATGAACAGAGGAA
AGGTTGACGATCTTTAGAGCCTTCTGCCAGGCTGAAGTGTTCTGCATCTTCCCTAGACCC
GGTACCTGCCCG

Sequence 466

CCGCGGTGGCGGCCGCCCGGNCAGGTTACAAGCTTCGACCCACGCGTCCGGGAAATTTTA
ATTAATAATAGGTGAACATTTTAAATGACCTAATACATATTTAGTCCACATTGAACTTT
GGCATTTTGTCAATTGCCATTAAATTTTGATGGCATTAAATTTGATGCCATTAAATTT
TGAT

Sequence 467

CCGCGGTGGCGGCCGCCCGGCGAGGTCAAGCTTCGACCCACGCGTCCGTGATAACTTCTC
CTAAGTGCCAGGCATTGTATTACATGCTGGGAGCACAAAGATGAATAATAACAATAGGTT
CACAGAAAAGATGAATTGATTGAGAGAAAAAGAACCCTCCAGGAGCCCTCAGCGTAGTAG
GGGGTTGGTGTGGAGGGTTGGAGGAATGGAAAAGGCCCTGAAATGCAGGCAGAGAAAATG
ATGAAACAATTCAGGGGCTGTGGTGAGGTTAAATGAATATCTTTACAGCAGCCTCGAAGA
CTGATCAGGTTACTATACCCTCTCTTCTGTCCACGTGCATTTT

Sequence 468

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCACAACATTCCCCCTT
CCCCAACAGTAATATGGACACTGATTTAACAAGACTTATAAAAAATAAGGCACATTTA
TTTTGATATGGTAATTTTAAATAGAAACCCCTTCTCAGAACACCTGTATTCAAATGAGC
TGTGTAAAAAGACACCTTGTGGTACCTAAAATAGGTTTATGGTACCTATGGAATTGCTTC
TATTTAGTGAAGATGGAATAAATTGCACCCATCCCACATTGTCAAGTAATGAAAATATG
CGGACGCGTGGGTCGAAGCTTGACCTGCCCG

Sequence 469

GACCTCTTTAAGTGAACTTAGTATGCTAATAGTATGATACGCCCTTTTGCTGTAGCAGT
TACCATAGTTACAGATAAGTATATATTGTTGTGATGATCTGATTTCTGGTTCCCCCACC
CCTGCAAAACAACAACAAAACCTTTACCAGGCTCTATAACAGGGGAGCCAACTTGTTT
TTGCTCATCATTGCCGGACGGTGGGTCGAAGCTTGACCTGCCCG

Sequence 470

GCTCCCCGCGGTGGCGGCCGCCGGGCANGGTTACAAGCTTCGACCCACGCGTCCGGGAA
ATTTTAATTAATAATAGGTGAACATTTTAAATGACCTAATACATATTTAGTCCACATTGA
AACTTTGGCATTTTGTCAATTGCCATTAAATTTTGATGGCATTAAATTTGATGCCATTA
AAATTTTGAT

Sequence 471

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTCAAGCTTCGACCCACGCGT
CCGTGATAACTTCTCCTAAGTGCCAGGCATTGTATTACATGCTGGGAGCACAAAGATGAA
TAATAACAATAGGTTACAGAAAAGATGAATTGATTGAGAGAAAAAGAACCCTCCAGGAG
CCCTCAGCGTAGTAGGGGGTTGGTGTGGAGGGTNGGAGGAATGGANAAAGGCCCTGAAA
TGCAGGCAGAGAAATGATGAAACAATTCAAGGGCTGTGGTGAGGTTAAATGAATATCTT

Sequence 472

ATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACAAGCTTCGACCCACGCGTCCG
GAGCGTTGCTTGGATTTCTAATTACTTCTAAGNGTAGTTTTATTTAATTTAGTCCTTTA
GAAAAANAAATAAANNAATGTGCGGGCCCCGCCCTGCCCGGCAGGTNCCACNCGTT

TABLE 1
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CGAAAAAGAAAGAAAAAACTTTCTCTTGCCANTTCTTCTTCTTTNTT
Sequence 473

CTACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTT
TCCTTTTGAGACACAGTCTCACTCTTGCCAGGTTGGTCTAAACTCCTGGGCTCAAGCA
ATCCTCCCGCTTTCAGCCTCCCAAAGTGCTGGGGTTACAGCCGTGTGCCACTGTGTCTGG
CCCTTTCTTTTTCATAGGAGAAGGGTTGTTGACTCCAGGAAACGTCACTGGAACCAA
GAATGTGAACTCAAGGACCCCGCCTGTTGGCAGCTGCATTTACTTGACTCCTGTTCACT
GTTTCTTAGCCTTGCTTTCTCTCCTGCCAGTTCTAGGGGACACTGCTTCTCCTGGTTG
ACCTCATCAATGCCCAACC

Sequence 474

CCGCGGTGGCGGCCGCCGCGGCGAGGTACACAAACCAGATGTATGCAATGATGCCAAAAGT
CATCTCAAATTCAGCTGACCTAGTGCAACACATTTACACTTGGATAAACTATCACCT
TGAAGATTTACTTTGTATACTTCAAAGATCTGGTCATGAAATTTTAGCTAATACATAA
AGTGCCGAATTGAAATCCAGAATACAATAGCTATGAAGGGCCGCTAGAGTGCAGATAACC
AACCATTCTACCTAACTCAGGTTGAGATTGCTTTAGAACCTATCATTGGCTTTAAATG
GTCCACAAAAAACACCTCATGGTCACACTTAAATAGTTTGCATCCCACTACAGGCT
TCTCTGGAGGATTTAATACTTTGGAAGTAGCATCATAAG

Sequence 475

CTNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGACCNGTGCAAATATCTACCCA
GTTAGAAGAGTAAATACCATCTTAGTGTTATTATCAAATATTCTGAACTCATGAACCTC
CTCAGACTGTTGCTGGGACTCCCAGATATCAATACTCTGAGAACCCTGATCTAATGTTT
CTTTAGTCAGTTTCTATTTGTTCTCTAGTATAACCAAGCATAAAAGTAATACTTCCGC
CTCTCTCTCCCCAACTGACTTTAGTCAATAGTACCT

Sequence 476

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAACGCTTCGACCCACGCGTCC
GGTTTGGGTGGAATTATAATATTTAGATAAGATTTAAGAGGATTGCTAGATNGGAATGC
GAATGATGATAAGGCTTTAGAGTTAGATAAGAGAGAGGGCGCTCTAGAACTAGTGGNTC

Sequence 477

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAACATTCCCCCTTCCC
CAAACAGTAATATGGACACTGATTTAACAAAGACTTATAAAAAATAAGGCACATTTATTT
TGATATGGTAATTTTAAATAGAAACCCCTTCTCAGAACACCTGTATTCAAATGAGCTGT
GTAAAAGACACCTTGTGGTACCTAAAATAGGTTTATGGTACCTATGGAATTGCTTCTAT
TTTAGTGAAGATGGAATAAATTGCACCCATCCCACATTGTCAAGTAATGAAAATATGCGG
ACGCGTGGGTGCAAGCTTGACCTGCCCC

Sequence 478

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGCGGCGAGGTACTTATACTAGAA
GATGCTCCAAGGTTTCAGAAAGGAATTAATTACTTTCAATTTGCACAATTTAGAACAAAT
ATCTGGCTTTTCCCTAAGCTTAATGATTTTCCATTTACACAACCTAAAATATAATAGCAT
TATTTATAATCAAGTTTAACTGATGGTCTATGATAGTAGAGCGATTTAGTATTTTGACA
AAAATCTTATGAGACATGAAGTCATTCAATTTGCCGGACGCGTGGGTGACTCAAGCTAG
ACCTN

Sequence 479

TTAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCTTT
CTTTTGTGTTAAGGGCCCATGACCTGCAGTTTCCCTAACATTCATTTTATACAGGGCA
GAGGTATGTGTGCGAGCTCAGATACCTTAAATTCATATGCCTTTAATAAATCCAGGCAG
ATTTCTAAATGAGGGATGCTTCCCCACAAATGGAGAGTAAAAGTGGGCCAGCCTAAAAGG
ACCTCCATAGCACTGTGCATGGCCAGCTGTTTGTGGCTGTACCTGCCCC

Sequence 480

ACTACTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTC
CGCTTCTTTTGTGTTAAGGGCCCATGACCTGCAGTTTCCCTAACATTCATTTTATAC

TABLE 1
81/467

AGGGCAGAGGTATGTGTGCGAGCTCAGATACCTTAAATTCATATGCCTTTAATACAATCC
AGGCAGATTTCTAAATGAGGGATGCTTCCCCACAAATGGAGAGTGAAAGTGGGCCAGCCT
AAAAGGACCTCCATAGCACTGTGCATGGCCAGCTGTTTGTGGCTGTACC

Sequence 481

GACCTCTTTAAGTGAAACTTAGTATGCTAATAGTATGATACGCCCTTTTGCTGTAGCAGT
TACCATAGTTACAGATAAGTATATATTGTTGTGATGATCTGATTTCTGGTTCCCCCACC
CCTGCAAAACAACAACAAAACCTTTACCAGGCTCTATAACAGGGGGACCAAACCTTGTTT
TTGCTCATCATTGCCGGACGGTGGGTCTGAAGCTTGACCTGCCCG

Sequence 482

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTATTGACTAAAGT
CAGTTGGGGGAGAGAGAGGGCGGAAGTATATTACTTTTATGCTTGGTTATACTAGAGAACA
AATAGAACTGACTAAAGAAACATTAGATCAGTGGTTCTCAGAGTATTGATATCTGGGAG
TCCCAGCAACAGTCTGAGGAGGTTCTGAGTTCAGAATATTTTGATAATAACACTAAGAT
GGTATTTACTCTTCTAACTGGGTAGATATTTGCACTGGT

Sequence 483

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTCAAGCTTCGA
CCCACGCGTCCGTGATAACTTCTCCTAAGTGCCAGGCATTGTATTACATGCTGGGAGCAC
AAAGATGAATAATAACAATAGGTTACAGAAAAGATGAATTGATTGAGAGAAAAAGAACC
CTCCAGGAGCCCTCAGCGTAGTAGGGGGTTGGTGTGGAGGGTGGAGGAATGGAAAAGGC
CCTGAAATGCANGCAGAGAAATGATGAAACAATTCAGGGGCTGTGGTGAAGTTAAATGAA
TATCTTTACAGCAGCCTCGAAGACTGATCAGGTTACTATACCCTCTNTTCTGTCCACGTG
CATTTNAAAAACNTTGGCCGNTCTAGAAGTAGTG

Sequence 484

CCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGATGGTTTTTGCAAAAATTGAAAA
TGCATCGATATTACAGTTAATTTTTTCAGTGTGTATGTGGTATTAGGCTTAGAACTATAA
CACAGGAAGTTTTTAGAGTATGTCCACTCTGGTTTACTCCTTTGTAAGTATTAATACCTG
ATAATTTACATCCTACAGCCCTGCCTTTTTTTTTTTTCAAGTTTGTCCCAGCAAGTCTT
GGCCCTTTGCATTTTCTTAATACATTTTAGTACCTGCCCG

Sequence 485

CCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTACCTGAAAATGCTTATTCTAGCTT
CACATTTGATTGTTTGGCTAAGAAGAAAATTATTTATTAGACTTAATTTTCTCACGAGT
TTAAAGATTGCTTCAGATCTTAACTTCTAATGAGGAAAGCTGAGAAGTCCAATGCCATT
CTGATTTCTGCACTTACAAGTAGTCTTTTTTGTCTAGACGCTTTCAGGACCTTCTTTT
TTCCTCAGTCAGTGTATCCAAACCTTCACAGTGATATCTTTTGGGTACCT

Sequence 486

ACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTGGAGGCCCAAG
TGCTGAGACTCAGGGGACGCAGGCCTGAGGACAGTTATGCAGGGTGCAGCGGCCTACGGT
AACCCATGTAGCAACAGAAAACCTTAGCTAACTGCCGTAATTTAAGGCAATTAGGAGCCA
TTCATCATCCAGATGGCTATTGGCTCTAATCGTTACTGGCTGAAGGAACTATATATAGCA
GCTACCTTTCCGCTCCATTCCCAGGCCTTGTTCTGTCTTCTGGTTGCCAGTTCTGCACT
CACTCATCCGGACGCGTGGGTCTGAAGACCT

Sequence 487

CTATNGGGCGAATTNTNCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACGCGTCCGA
TCACTTTTTTCATTNATACCTTATTAGATAAAACATTAGCCCCCTAGAGTGTTTTGTGAA
GGAAATATGCCTAATAAGAGATGATAGTTTTAGCAATAAATGAGCATTAGAACTATTATT
TATTAATGAAATGAACTGGTGGTCTGAAAGTGATGATAAACAGACAACTGTGGAAAATGA
ATTATTAATAATCCATGGAATTCCTTTTGAAGTTTATGAAGT

Sequence 488

CCGGGCAGGTACAAATCAAGTCATTAACATTTTCAATGTCAAAAATACAGCACGCTGTTA
AGAGTTCTGTGAGTGCTCATTATCCCCTAGATCCCACAAAGGGCAAACCTCAAAGATGA
AACAAAGGCAACGCCATCAATAACCACCATATTCCACAGGCTTCTCCCCTAGGACGTAC

TABLE 1

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CTN

Sequence 489

CCGCGGTGGCGGCCGCCGGGCAGGTGGAAAGGTGGGTGGGGAGAGGGAGGCTTATTTGT
TGCTGCAGTGTAACCTAAGTGAAACCTAATTCATATGACTCAAACCTAAGGTATATTTGGTT
AGATCTAGGTGAGTTCTACTTTAGAGGAAATCCTGGTAAGTGTGTTTGTGTTGTAAGTTA
TAGCTGTAATTAATTTCCCTGTATTCAAAGCCCCCAAACCTGCATTGAGATACTATGC
ATTTAGACTTCCTTAGGCAAAGTCAAGGCAACAAGCTGATGATTCTAAAGCTATTNTTCA
AGGGAGNTNTTTACCCATCATAAAGGNGGTTTTAGTCATTATAGATAATATTCAATCAA
TTANTACCGGGGGATGGCAAAAA

Sequence 490

CCGCGGTGGCGGCCGAGGTGTAATTTGGAGAATATTTAAAGCAAAGAGCAAACAACAAA
AACTAAGTTAACTACTACCCAGTGCAGTAAGGGAATTGTAAGATACAGCCTGCTTAAGGA
GGTCTGCAGACAGATGCACCTAAGATTTAGCTGTTTTAGGTCACTTTTCTCAAATATT
TATTATCTGGCAATGGGGATGGGAGTGGGGAACACCTNTCTGTGAGGCAAATGGTATCTC
AACAAATACCGACTTTTCAAGGAAGAAAGCTCTCCACTTCTCTCATAAACTTATATACTA
CCTTAACAGTATGCAGTATTCGCGGACGCGTGGGTGCAAGCTTGACCTGCCCCGGGCGGC
CCGCTCTAGAACTAGGTG

Sequence 491

CCGGGCAGGTACAGCCTCACATACACAGATGCAGGTGAAGTCACCAAAGCTGATCTCTCA
TTCGTTCTGGGGACAGTTAGCAGCGTAGTGGTCCCACTGCAGCAAAGTTTGAAATTCAT
TTTCTTCAGGAAAATACCCAGCCAGTCCCTCTCAGTGGAACCCCTGGTTATGTCGTGGGG
CTCCCATAGCTGCTGGATTCCAGCCTCATAAGGGTGGAGCTCTCCCGTGTGAGCTCGTA
GCACAGAAAGGTGAAGAGCCTGCTGTGGGGCCAGTGCTTCCAGATTACGTGGCCCCCTTTT
GGAAATTCAGGCCAGGGACATGCTGGACTGGGTGCCCATCCACTTNATCACCCAGTC
ATTCAACAGGGA

Sequence 492

CCGCGGTGGCGGCCGAGGTACTATTGACTAAAGTCAGNTGGGGGAGAGAGAGGCGGAAGT
ATATTACTTTTATGCTTGGTTATACTAGAGAACAAATAGAACTGACTAAAGAAACATTA
NATCAGTGGNCTCAGAGTATTGATATCTGGGAGTCCCAGCAACAGTCTGAGGAGGTTCA
TGAGTTCAGAAATATTTGATAATAACACTAANATGGTATTACTCTTCTAACTGGGTAGA
TATTTGCACTGGT

Sequence 493

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGTTAAAGGAATAATCTGCAGA
ACATCTTGATTTACAAGGGACAAAATGATGCAAATTATATGCTGTCCAACCTACTGGTGA
ACTGGATCAGAAATGGTCCAAGGACTGTAAACAGAGGAAGTATTTACATTTTGAAAACCT
GCGGACGCGTGGGTGCAAGCTTGACACCT

Sequence 494

CCGCGGTGGCGGCCGTTAAAGGAATAATCTGCAGAACATCTTGATTTACAAGGGACAAAA
TGATGCAAATTATATGCTGTCCAACCTACTGGTGAAGTGGATCAGAAATGGTCCAAGGACT
GTAAACAGAGGAAGTATTTACATTTTGAAAACCTTGCGGACGCGTGGGTGCAAGCTTGTA
CACCT

Sequence 495

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCCTAAAA
CTTAAAGTATAATAAAAAAAGATTATTTCTATACTTCAAATCAACAAGATTTGATTG
CATTTAAATTTTCTGTCCATTTGTTCTTCTATGTAATACTTTAAAAATAATTGGCATAA
AAATTCAATCAATTCATAAAAGTCCAAAGCAAAAAAACAATCTACTGACATNTCTTGA
GGAAGAAATGATCAGGATTGACATTAATGAACCTCTCACAGAGACCACTACACACACAC
ACAAAAAGAAGGATGGGTGAATGGATGCAGAGAGAATTTAATAAGACTGAAATGATGCCA
TACATGCTTTTAAAAAATAAAAAGTATTAATTTTAAATTTTACTTCAATATAAGAGAAA
AAAAAAA

Sequence 496

TABLE 1
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CGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTCTTCGA
CCCACGCGTCCGTAGTAATAGGGAATTAAGTACCCCTTTTGGATGGGGGAGAGCATCAG
GCTGGGGTCAGGTAAGTGTAATGGCCTTCTGAGCATGCTCTTCTAGGCTGACTCCCAGC
CCTGACTTGAAACCATTAGCGCTAAGTCTGCTCTGTTTTGAGAAAACTTTCCAACTTTT
GCATGAGAACTAGAAAAAGGAATGTATGCCACGTAAGTGGATTACAGAAATGAGTTAAT
TGTCTCTGTGATAAAAAAAAAAATGAAATATTTTCTTATTGAATTAATATTTTGTCTTGA
AGCATTTTCTAGTGATAGAATGTATTTGTCTTTTTCTGGGGGNACCTCGGCCGCTCT
AGAAGTAGTG

Sequence 497

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCCCGAGGT
AGCACTTTGAACACTTGAACATCTATGAAATCACATAGTAAAGTGATAGGAGATGGGGCT
AAGCTTTTAATGGCCTTTAGACATAGCATTAGACATAACCTAAGCTGAAAGGCTTTGGGA
AGTTGTTGTGTTAAATCCCCAACACACTCTCGTGTCTTTCTTAGGACTTGCCTNTTATTTA
AAAAAAAAAAAAAAAAAGTTGCGGCCGCTCTAGAACTAGTTGGATCCCCCGGGCTTGCAG
GN

Sequence 498

CCGCGGTGGCGGCCGAGGTACCCTTTTATAAGGGTGTATCCCCTTTTGGTAACTTACTGT
TTGTTAATTTGTAGTGTTCCCTGCCAGTAAGCTTGTAACACTCTAGTGACTCACCTTCGG
GTGGGAGGGTAGGAAAGGGAGAGGCCTGCCTCCTAAACCTGGGAAGATGGGGAGAGAGTG
GTAAACCTGAGAGCCCCAAAAACAAACCAAAAAAAGT

Sequence 499

AGGTACCCAAAAGATATCACTGTGAAGGTTTGGATACACTGACTGAGGAAAAAGAAGGT
CCTGAAAGCGTCTAGACAAAAAAGACTACTTGTAAGTTGCAAGAATCAGAATGGCATTG
GACTTCTCAGCTTTCTCATTAGAAGTTAAGATCTGAAGCAATCTTTAACTCGTGAGG
AAAATTAAGTCTAATAAATAATTTTCTTCTAGCCAAACATCAAATGTGAAGCTAGAAT
AAGCATTTTCAGGTAAAAAAAAAAAAAAAAAGT

Sequence 500

CCGCGGTGGCGGCCGAGGTACTATTGACTAAAGTCAGTTGGGGGAGAGAGAGGCGGAAGT
ATATTACTTTTATGCTTGGTTATACTAGAGAACAAATAGAACTGACTAAAGAAACATTA
GATCAGTGGTTCTCAGAGTATTGATATCTGGGAGTCCCAGCAACAGTCTGAGGAGGTTCA
TGAGTTCAGAATATTTTGATAATAACACTAAGATGGTATTTACTCTTAACTGGGTAGA
TATTTGCACTGGT

Sequence 501

CCGCGGTGGCGGCCGCCCGGGCAGGTGAGGAGTGTCCCAAAGATTTCCCAAGTCCAGCCC
AGAGAAGCTGAAAGCCTTTCCCCAGGTGTGGGGCTGAGTTAGATGTGGGTCATAAAGGA
TGTGGCCTCGAGGCTGGGAGGCAGCTGGGCAAAGTGGGAAGCCTCCCTACTCCTGAGACA
GTGATGGCTCAAATCCAGGCCAACCTGGAACATGATCCTCAACTTCTTAAGTTCACCTT
TCCCAGGTGTGAAATGGGTTGTTCTGGGAATTGAGTGAGCTAATGATACACTCCCTGGCA
CACAGCGAGCCTNAAAACGCTTGTGTCCCCTCCCTACCTCACAGCCCATTTTAGAAGTTT
GCTGTCACTTA

Sequence 502

GACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTTTTCTTA
TGAGTGGGAGGTGACTGATCGTGGAGGTGGATTTCTTATGAGTGGGAGGTGACTGATCGT
GGAGGTGGATTTCTTATGAGTGGGAGGTGACTGATCGTGGAGGTGGATTTCTTATGATTG
GCTTATCACCATCCCTCCTTGGTGTCTTTTTGCAACAGTGAGTGATTTCTTGTGAGATC
CGGTTGTTTAAATCCANAGGCACCTNCCCCTACCCTCTAGCTCCCATTCCTGCCATGTAA
GACACCTGCTCCCCCTTTTCTTACCCCATGATTGGAAGCTTTTTGAGGCCTCCCCAGA
AGCTGATGCCAGCCCTATGCTTCTGCACAGCCTG

Sequence 503

CTACTATAGGGCGATTGGAGCTCNCCGCGGTGGCGGCCGAGGTTTTTGAAATGCACGTGG
ACACGAAGAGAGGGTATAGTAACCTGATCAGTCTTCGAGGCTGCTGTAAAGATATTCATT

TABLE 1
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TAACCTCACACAGCCCCTGAATTGTTTCATCATTTCTCTGCCTGCATTTTCAGGGCCTTT
TCCATTCCTCCACCCTCCAACACCAACCCCTACTACGCTGAGGGCTCCTGGAGGGTTCT
TTTTCTCTCAATCAATTCATCTTTTCTGTGAACCTATTGTTATTATTCATCTTTGTGCTC
CCAGCATGTAATAACAATGCCTGGCACTTAGGAGAAGTTATCACGGACGCGTGGGTCTGAAG
CTTGACCTGCCCGGGCGGC

Sequence 504

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGCTTCGACCCACGCGTC
CGAAATTCTTGGTTAAGGATTATTATAAAATAGAATGGTATTTTCAGTAAATCCCTGAGGC
TAGGAGTCCAGGTACAATGTTGGTTCTCAATTAATAATATAATCATGTCTAGGGACACT
TAGGAACACAGAACATATATTTAGAGCTAGAAAATATACAGCTTCAGACCAGGCAAAGTG
CTGGGATTACAGGCGTGAGCCACCACGCTCGTCTCACATGGGGTTTTATTATTAGGATG
GTAAGAGTATTATAAGGGATTNGGTACAAGGCATAATGAGTCCTTTTGCTTTTAGGCTT
TTGACTTNTGGTTTTAAGACTTTTNTTAGCTTTTGTNGTTAGACANCCATTTGGGCA
AGGCTTNGGTTTTTAATAAAGTTTGCTTGGGATNAAACNTGACCTTAATGGAAATTGTC
CCCTNCCCCAAAA

Sequence 505

CCGCGGTGGCGGCCGCCGGGCAGGTACTACTGATACAAATAGCATGGATGAAACTCAAA
ATCATTATTCTAAGAGCCAGATACTATAGCCTGTATTTTATGATTCACTTTCAATGAAAT
TCTACAATAGACAGAACTATCTATCAACAGAAAGCAGATCAGTGGTTTTCTGCAGCCAGA
GGTATGAAAGGTTTGAAACATGTGGCACCAGTAGGACATATGGAACTTTTTTGGTGTGA
TGGAAGTATTTTTTATCTTGATTGTGTGGTGTGTTATACAGTGGTATACATTTGACC
T

Sequence 506

GGGGCGGCCGCCCGTTTCAGGTACACGTNTTNNCCAACCAATTTTATANGNATATATATAT
TCTACTTCCAACCCNTNTTCATCCTGGTNCAATCAAAGCCTGGTTNTGGCCAACAANA
AACTCGTCAGGAGATCGAAGGNTGTAGATGTCTGCACGTGGCTTCCTTGGAGGTCCAGNG
GNGACTCCCTCTTCCAAAATCCATTCTGTACCCGCTGGCTGCTCTAACGGGCAGGACAAC
AGCGTATGAAGCCTGACTGCAACTAGGAGAAGTACCACACTCCCGACGCGTGGGTCTGAA
GCTTGTACACCT

Sequence 507

GGCCGAGGNCAAGCTTTTACCCACGCGTTTGAANCCATCTGTTTGGNACCCNGAAAGGGG
GCAGGAAAGGCTGGGGTCCCAGNCCACCCTAAGGGNATCTGAGTGGCCAGGGCTNCAAG
NNNNCCACCTGNCCAATGGGACCCCTTCTGNCCTCACCTACAAGGGGCACAAAGGGAA
GACACCAAACCTGGCAGGAACCTTTCACGCAATCAAGGGAAGGAAAGGCANTCCTGGCAG
AGGGAACAGCANGCCAAGCGGGAGAAGGCTCAAAGTAAGGAGGGTAAG

Sequence 508

CCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGCTTTTCAATTTTATTGTAT
AGTTTTTGATAATGTTAATGTCTGAGATCTTTATGGGTGAGTCTGCTGTCAATTTCTGCTA
TTTCTCGTAGTGATTTGCTTGTATGGTTTATGATTTTTTAAAACTGAATGTGTATTAGA
ATTGTGTCTGGTAATTCTTTAGGGACCCATTGTAGATGTATTTCTTCAAAGAGCATTTGT
GGTTATTATATTTGGGTGCTTGGGGCACTGCCAGTACCTGCCCG

Sequence 509

CCGCGGTGGCGGCCGAGGTATTGAACCAGGTCAAAACATTGTTGAATATCAAACCCAATC
TATTTAATCTGTAAGAAACAAGGACCCTGAGAAAGATTCTGACCAAGGGTATGTGATCGG
AAACTTGACAGATAAATGTAGTATACTTGTAAAGCCATACTGTGAAAACTTGGGGATTA
TTTGAACACAAATTATCACCTGGAAAAAGACAGAAAACAAGGCAGAAGACTGTGCAAGA
GGTTGGAATATTCAAACCTTCAGATTAGAAG

Sequence 510

CCGCGGTGGCGGCCGAGGTACCCAANNGATATCACTGTGAAGGTTTGGATACACTGACTG
AGGAAAAAAGAAGGTCCTGAAAGCGTCTAGACAAAAAAGACTACTTGTAAAGTTGCAAGA
ATCAGAATGGCATTGGACTTCTCAGCTTTCCTCATTAGAAGTTTAAGATCTGAAGCAATC

TABLE 1

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TTTAAACTCGTGAGGAAAATTAAGTCTAATAAATAATTTTCTTCTTAGCCAAACAATCAA
ATGTGAAGCTAGAATAAGCATTTTCAGGTAAAAAAAAAAAAAAAAAAAAAGT

Sequence 511

CCGCGGTGGCGGCCGCGACCGCTTGGCCGCCCGGGCAGGTCAAGCTTCGACCCACGCG
TCCGAAATTAATGAAATGTTTTACATTCTTTTAAAAACCTTTGAAATATGGTGTGATTT
TATGCTTTAGCAAATCTCAGTTTGGACCATTTAGGTGGTCAGCAATTACACATGGCTAG
AACTAAGAGCAATCAGTTTTNTCCACAGTTTTTCTAAAATTTCTTGTCAAAAATCTTG
ATGGTATGAATTACTCTTTTAAAAAGTGCACCTNACCAGCAACAGAAAANAACCCTGGAG
GGGTATGGGTTTTAAAGCTGGTACCTNGGCCGNTCTAGAACTAGGTG

Sequence 512

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTCCCAAAGTGCTGGAATCA
CAGGAATGAGCCACCACACCCAGCCAAATTGGGCACAAATTTAAAATTTGACTTTTATTA
ATGATATGGTAAAGAGATCTAGCTTGGTCATGACACCCTTGTTTATACGGTGACAGGCA
AATCATTTAAAAATATCTAACTATAATTTCTGTAGTTACATGAATTGGATATTCTGA
AGCGGACGCGTGGGTGCACTTGTAACTGCCCGGGCGGCN

Sequence 513

CCGCGGTGGCGGCCGCGCGGGCAGGTACAGAAAGGACAAATACATCAGTAGAAAAGAAGA
CAATATAAGGGCAGATTGAAATATATACGTGAACGTCACAAAGACCAATTACTGCCATTT
CAATTCAATGAGGAAATAATGATGTATTTAATAAATAGTGCTAGAATGCTGCATTATCTG
TCTAGGATGAAAAAAAAAAAAAAAAAAAAAGT

Sequence 514

CACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTCACTATAGGGATCT
AGATCACGAGCGGCCGCGCACTTTTTTTTTTTTTTTTTTTTCTGCCACCTCTTTC
ACTTGGGAATCTATTTTCACTGCTCTCCAAAGTTTTGAGAAGGCAATAGTCTTGAAAAT
GGGTCTGAGCTCCTCTCAGCAGTCTGCTTTCTTCCACCTGCACTGTAAGGNGACCC
AAGTGGTCTAAGACAAAAAGTCCGACGCGTGGGTGCAAGCTTGTACACCTT

Sequence 515

CACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTTAGTTACCACTTCA
TTACTGGAGGGCACTGTCAAACTTCTGACTATCCAGACTTGAAGCTGGAAGCAAAATAC
AAGTCTGAGGGGCTCTAAGCTGGGAGGTTCTGGCCTCTCCCTAGCTCTCTATGGCTCTAC
CTCTCTGCTTGAAGCTCCCTGCACTGCACTCCCACTTACTCTGACTGGGGATAGGACCCT
GCTGACAGGGCCCCACCTCAACTTCTTTCATTGCCCTCTTCCAGGAAATCCCACCCTGGG
ATACTTCAAAGACCTCATATGCTACAAAGATCAAGGCCACCTAATGAGTGCTCTAGAGAT
CAGCACCAAAGATGCTTGCCAGAGTCTTCTCTA

Sequence 516

ACACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCAC
GCGTCCGGGGAACCCCTTGTTCAAGTTCTTTTAGGCAACCCAAGCCAAGACAACAAAGTA
AGATAGAGCCCCAAATGTGGTCGTATAAGGTTTTTCAAAGAAAGTAACACTTGAGTTAGG
TCTTAAAGTTTACCTAAGAACTGCCAGGTGGACAAGAAGAAAGGGTGTCCAAGTAG
AAATAATANCATGGACAAAGGCAATGTAGCAGGAAAAGTNTTCGTAAATTCAGGGGAATTT
CAAGTGTTCACGATGGAAGGAGCAATAGAGTCATTTACTTGGCGTGGCAGGGGATGTTG
GAAATGTAAACAAGAGTGAGATACAGAAGATTTTATGTGGCATGCCAACTGGGACTTTTT
TTTGTAACAA

Sequence 517

TCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGAGAAATACCATTTGCACA
GTCAATCACTTCTGACCAAGCTTATCAGAAAAAGGAGAAAAGAATGTCTCCCCACTAAAT
GTTCTAGGGNGGGNGAGGAAANCTAGGGTGGNTATCTAAATCAACAAATATTCTAGATAT
TCCAATATCTAAATFATTGTTGGAAATACTCNTCCTGAAGNGNTCATTTGAACNCTAAAG
CAGGAGNACAGCNTTTGTTGTATCAANATGGGCAGGGGTTTTTAAAGGGTNTCCATTTTT
TNTTANTTTCCNCATTATTAAATTCNNTNTAAATNNTTTTTAGGACCAAAAATTTTTCC
CNTTCTTNGAGGTNTTTAAAGGGGGATTTAANAAATGGGNNANNTGGGGGGTTT

TABLE 1
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Sequence 518

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATGGTAGAGAAAGATTCAA
AATGCTGCTGTTCTACCTGAGATGGGAAAAATGAAAGCAAATAACATCAACAAAAACAA
ACAAACAGCCTTGTAGTTCATGTCACTAGCCAGGGATTAAAGACCAGCCTAGAGAACAT
GGTGAGACCCCTTCTCTACAAAAATAAAAAATAAAAAATACAAAAATAAGCTGGACATGGTGG
TGTGTACCTGCCCCG

Sequence 519

ATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAATGCTTCGACCCACGCGTCCGCTCACT
TCATCCTCCCAGCAACCTATTATGATCCATTGCCACACCAACTTGCTGATGAGGAAAGTG
GGGCTTAAGGAAATTAAGAGCTGTTGTGGGACTTCCAAAGCAGAAGACAGTAGGCTTTC
AGAAATTTGATAAAAAATAGCACTTTGCATTTNTTGAATCTTGAGCTAAATGGAAATTAAT
ACTAAACATTCTNCACTGGTAAAATAGAGAATAAGGATATTAACAGTAAAAGAAAAGAAG
AAGAAAAGGAAATGTGCTTCCACAGATTTAGAAACATAAGTAACAATCTAAGGTTAAGGC
TTTTGGCACCTGCCCGGGCGGCCGCTCTAGAACTAGTGGGAT

Sequence 520

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTCTTCGACC
CACGCGTCCGAGCTATGGACCTAAGGCAGCGAGTGGATTCACTAGTCCTCTTCAGCTGA
ATGCATGCTACAGTATAAGAAAAAGCTGCTGCCTATATGAAGTCTTTGAGAAAGGTTTG
TTAGCTGCTGTTAATATTTAAATCAGAGGAAACATCAGGAGTCATTCTAGAGAATGGCAA
GAGTTTTCTGCAGTTTATATTGTTGACTTTTTATACGATATTGGGGTACCTCGGCCGCT
CTAGAACTAGT

Sequence 521

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTTCGACCCACGCGTCCGC
TAGGAACTATGTTAAAAAAATTAAGGAGATTACAGTGTTACTGTG
ACACCAGGAAAACTTAGAACTTTGTGTGAAATAAGACTGGCCAGCATTAGAGGTGGGTTG
GCCATCAGAAGGAAGCCTGGACAGGTCCCTTGTTCAAAGGTATGACACAAGGTAACCCG
TAAGCCAAGGCACCCAGACCAGTTTCCATACATAGAACCTGCCCCG

Sequence 522

CGACTACTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTT
TTTTAAGTAAAGAAGGTTTTATAATATAGTGAAAACAATACGGAGATGAAAACCAGGAGA
CCTGGGTCCCGCCTTTGTACAAATGCCTTTCCTAAAAGCTCCAGAATGGTGCAGGTCA
AAACAGATGGGCAGAAAGGAAGTGGTCATCAGAGCAAGAGAAAGAGCAGGTGCCAGGCAC
TCACGTGTGCGGTCATATCAGGTAGAGATGATGAGTAGAGATCTGCCCTAGAAGACACTG
AATTCTGAGATTCAAAGGGGAAAAGTTGATTTTATAGCCAGTGATTTTATAGCCCACTTT
CCTGCCCCACCCCTACTNTAAGAATTGCGGACGCGTGGGTGCAAGCTTGACCTGCCCCG

Sequence 523

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTCCCAGAATA
ACTAAATAAATAAAAGGCTAAAGAAAACTGGAACAGTACTGCGTCTCCATCTGAGACGCA
NTCTTCTACTTCCAGCATCGNAGAGAAGGGCTAGGGACAATTTTTTTTCAAAGATTTAT
ATACAGGCTTGAATCCAGAAATTAAGGNTAAAGCATAAATATTGATAATTTCAACTAAA
TTCAGAAATGGNTTCAGAAAGATATGATACAACAATTTAGAATAAAACAAAGCAGAAGAGC
ATNATATTTTGCGGACGCGTGGGTGCAAGACCT

Sequence 524

CCGCGGTGGCGGCCGAGGTGTACAAGCTTCGACCCACGCGTCCGCTTAAAGATTTTTTT
TTTATGTAAACTGTTGAATATTTGAAATAGTCCACTTCACCTTAATGGGTCTTGCTATC
TTCATTAGTCTTCAAAGAAAAACCATTTGCTACCAAAGTAAATCAGTATTTTGAATGTGC
TTCTCTTGTTTTTTGTTTATTAGCTAGTTCCTGTAAGCATTTCCACCAGAACTTGAGGCA
AATCGTAAGGAAGCTGTTTCTTTTAAACACAAACCACCACCAAAATTTAAATGTACCT
GCCCCG

Sequence 525

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTTCAAGACCCGCTGGC

TABLE 1
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CAACATGGTGAAACCCCATCTCTACTAAAAATATAAAAATCAGCCGGGCATGGTGGCATG
TGCCTGTAATCCCAGCTACTCAGGAGTCTGAGGGAGGAGAATCACTTGAACCTGGAGGCA
GAGGTTGCAGTGAGTCGAGGTTGCGCTACTGCACTCCAGCCTGGACAACAGAGGGAGACT
CTGTCTCAAAAAAAAAAACCTACAGCTGTTCAAGGACCAGCTGACAGGTCAAGTGTGGCC
TTTTCTGGTCTTTGAACACATCATAGAAAGTGACAAATGCTGCAAAGCCATGAAGAACAT
GAACTATAAACGGGTAGACTAACTGCCAGCTTAGACACTTATCTATGCCACAAAACAGC
TGAATT

Sequence 526

CCGCGGTGGCGGCCGAGGTACCAAAACCCGGCTTTTTTCGAAATACCTGCAAAAAAAGT
GGATGATTCCAAATCCAACCTGAAGTGTCTGCTCTCTCCAATTCAGAACAACCAGAAGG
GCCTGTCTTGAATTAGGTAATGCATTAAAGAAAAGTAGGATTATTATTTCCAATTTCTT
CCATCAGATGTAAACATTATTGGTAGATCACATCTGTTTAATAAATCTGTAAAGAAAGA
CGTGTAATTATAATTATGTTACCATTGTATGTAAATGGCATTTTAACAAGACATATTAAT
ACATTTTTATAGAGTACCTGCCCG

Sequence 527

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGT
CCGGTTAATTTGGGAGAAGGAAGAGAGAGTGACATATTTGGCTACCTTCAGGGAACAAAA
TCTAACAGCACAGATGGTAGTAGAGGAGATACCAATTTACATATTAAGGAGCTAGAGTTG
ATGATGGTATGACTCAGCCCTCTGAGATTAAATTCTACTTACTAGGGCTATGAATGGAGA
TAAGTAGGTATCCCACCTTTTATTAGAAGGTTCCCTTAAAATAAATATGGGACTCTGGTCA
GAGAGTAGGGCCATTAATTTGCTCCTGGTTTTTACCTGGCATCCACCCACAGTACCTGC
CCGGGGGGCGGNCGGCCCGCCCGGGCAGGTCCCGCACTTTTTTTTTTTTTTTTTCCTTT

Sequence 528

CCGCGGTGGCGGCCGCGCCCGGGCAGGTATTGCCCTTTGATGTCCCATGAGGGCCAGGCC
AGGCAGAACCCATCCCATTTTATCCTTAACTCAGAAGGAAATTTGTCTAAATATTAAAG
GATTAATATGGGGAATAAAAAATGAACCTTAAACCCTGCCACTGATACACAAGCTGTCTC
TCTTAGAGTTCAATGAACACTTCAGGAGAGTATTTCCAACAATATTTAGATATTGGAATA
TCTAAATATTGTTGATTAGATAACCACCCTAGATTTCTCACCACCCTAGAACATTTAGT
GGGGAGACATTCCTTTCTCCTTTTCTGATAACTTGGTCAGAAGTGATTGACTGTGCAA
TGGTATTTCTCAGCTAAAATCTCCCTTATGAACCCTTCTCGAAATCC

Sequence 529

ACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCCCATTTCCCTGAAACA
AGCAGCCAGCAACTATCTCAGAAATGTGTCATTTTTACTGGTTATAATTCTTAAAAAGCT
TGTTTTCTTAAGATATGAAATGCCTGCCAGTATACAACTGTTGTAATACTTCCCTTTT
TGCTTTTAGCGGGGAAAAAATAGCTTAATGACAGCATAGAATCATGTAGTAAATATAATT
CATTTTTTGAAAGGTTGAGCTATATCCTCTTCCATTTGTTTATTTTAAATGATCTAATTG
CAAACATGTCATCACTCCCTTGATGTTTACCTCCTTGTTATGCATTTTAGCAGGCTTTA
TTGTCACCTGAGATTTTTTTTTTCTTTGACAGGCCGGAGTCTAGATGAAGGAAAATGTG
TAGAAGCACCTTATCCACAGATGGGG

Sequence 530

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGTAGCAGAGCAGCTCCCTC
GCTGCGATCTATTGAAAAGCTTGAGTCGACCCACGCGTCCGCTGCATAAAAGTTATGCAA
AAAGCATTTTATGATATACCAGCAAAAAACATGGAAAATGAAATTTTGAAGCAATGCC
ACTTCAAAGATCCCTCAAGTGCCTAGAGGGAGAAAATGAGTTAATATGCTTTGAAGAACT
GTATCCAGAAAATAAAATTACAAAGGAGGAGAGGGATAGGATTCCAGGACAATCTCAAAA
CTATTGCTTTTTCTTAAATTCATTGCAACCTTAAATCCTAGCAAGTCTTTAATGTAAA
TTAACAAGCTAATTCTAGAATTCATATGCATATTCAAAAGTCGAATAATTGTCAAGGCTA
TCCTGTAGAATGGGACAGAGAGGATTGAAATTT

Sequence 531

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTAATCCCGTCTTAC

TABLE 1
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AGAAGAGAAAACTGAGATTTAGCAACATAAAAGTATTTCCCGTAAGTAAACAGTAGAGCC
AAGATCTTGACCTACGCCATCTGATACCCTGAGCCCATGCTATAAAAGAGGAGCATTAGA
AATATTTGAAAGATAGAAATGAGAACTAGTCAATATTTATTTTGCTTAGCACTGTATTCA
GTATTATGGCATCTTAAAGTAGTTAAGACTCAATATTTTCATCAAAAAAGTTTAAATCTA
ATCAGAGAAT

Sequence 532

CGCTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAATAAGCCCACCC
CACTAGGAACTATGTTAAAAAAAATTCAAGAAAGAATTTAAGGGAGATTACAGTGTTAC
TGTGACACCAGGAAAACTTAGAACTTTGTGTGAAATAGACTGGCCAGCATTAGAGGTGGG
TTGGCCATCAGAAGGAAGCCTGGACAGGTCCCTTGTTTCAAAGGTATGACACAAGGTAAAC
CCGTAAGCCAAGGCACCCAGACCAGTTTCCATACATAGAAAGTTACAGCTGCTTTTATAC
CCCCTTGCCCCGCCAACGTAGT

Sequence 533

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTGCGACTTTTT
TTTTTTTTGTAGAGACAGGATCTCCTTATGTTGCCAGGCTAGACTTGAACCTCTGGGC
TCAAGGGATCCTCCTGCCTTGGCCTCCAAAAGTGCTGGGATTATAGGTGTAAACCAGTGT
GCCTAGCCTACAGTTTTTTAATTTTATAAAATGTTATTTCTAATTTTTCTCCAAAAGTAA
AAGTGGCATTCCAATGGCAATATTAATTCAGGTATCCAGAACTCTTAACCTAAATTTGGG
TGAGATGAGGAAAAGTGATTGTTAATTTTATGTGTCAACTT

Sequence 534

CTACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTCTTCGACCC
ACGCGTCCGTAGTAATAGGAATTAAGTACCCCTTTTGATGGGGGAGAGCATCAGGCTG
GGGTCAGGTAAGTGTAATGGCCTTCTGAGCATGCTCTTCTAGGCTGACTCCCAGCCCTG
ACTTGAAACCATTAGCGCTAAGTGTCTGTTTTGAGAAAACTTTCCAACTTTTGCAT
GAGAACTAGAAAAAGGAATGTATGCCACGTAAGTGGATTACAGAAATGAGTTAATTGTC
TCTGTGATAAAAAAAAAAATGAAATATTTTCTTATTGAATTAATTTTTGTCTTGAA
GCATTTTCTAGTGATAGAATGTATTTGTCTTTTTCTGGTGGTACCT

Sequence 535

CCGCGGTGGCGGCCGCCCGGGCAGGTGTCCCCATGAGGGCCACGGCCCAGGCAGAACCCA
TCCCATTTATCCTTAACTCAGAAGGAAATTTGTCTAAATATTAAGGATTAATATGGG
AATAAAAAATGAACCTTAA

Sequence 536

GAANTGGAGCTCCCCGCGGTGGCGGCCGAGGTCCAGTAGATTTGGAGAGTAATACAAATC
CTTTCTTTCTGGTTAGAACACACTGCCAAAAGCCACCTCTTTCATCTAAGGAAAAGATTA
AAAATGCATGTTGATATCTCCTAACTATCACACAACTTCCACTATTACAATGAAAAATCT
GGTCCCCTTTTATTGCCTTTGAAAACCNTTTTGCCGAGGTGGNTTCAAAAAACNCGNG
ANTTTTNAAAAANTTGGNTTTGGTTTTACCNGGGGAAAGGGGACNTTNNCNNTTTTTTT
TTTTTTTTTTTTTTTTNAAANGGNGATTNGGTTNNGGTTNTNCCTGGGGCCAAAATNCC
NTTTGNGGAACCTTTTTTGGGGTCCNAAAANNACAAAAANAAGGGNTTGGGACNATNT
TTTTGNATNCNCNCNAAAAAAATTTTTTTTTT

Sequence 537

ACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTTCGACCCACGCGTCCGCTA
GGAATATGTTAAAAAAAATTCAAGAAAGAATTTAAGGGAGATTACAGTGTTACTGTGAC
ACCAGGAAAACTTAGAACTTTGTGTGAAATAGACTGGCCAGCATTAGAGGTGGGTTGGCC
ATCAGAAGGAAGCCTGGACAGGTCCCTTGTTTCAAAGGTATGACACAAGGTAACCCGTAA
GCCAAGGCACCCAGACCAGTTTCCATACATAGAACCTGCCCG

Sequence 538

CACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTCAAGCTTCG
ACCCACGCGTCCGTGATAACTTCTCCTAAGTGCCAGGCATTGTATTACATGCTGGGAGCA
CAAAGATGAATAATAACAATAGGTTACAGAAAAGATGAATTGATTGAGAGAAAAAGAAC
CCTCCAGGAGCCCTCAGCGTAGTAGGGGGTTGGTGTGGAGNGGTGGGAGGGAATGGAAA

TABLE 1

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AGGCCCTGA

Sequence 539

AATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGACAAGCTTCGACCCACGCGTCCGCAAGT
TTTCAAATGTAAATACTTCCTCTGTTTAACAGTCCTTGGACCATTCTGATCCAGTTCAC
CAGTAGGTTGGACAGCATATAATTTGCATCATTTTGTCCCTTGTAATCAAGATGTTCTG
CAGATTATTCCTTTAA

Sequence 540

TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCCCATTTCCCTGAAAC
AAGCAGCCAGCAACTATCTCAGAAATGTGTCATTTTTACTGGTTATAATTCTTAAAAAGC
TTGTTTTCTAAGATATGAAATGCCTGCCAGTATACAACTGTTGTAACACTTCCCTTT
TTGCTTTTAGCGGGGAAAAAATAGCTTAATGACAGCATAGAATCATGTAGTAAATATAAT
TCATTTTTTGAAAGGTTCAAGCTATATCCTCTTCCATTTGTTTATTTTAAATGATCTAATT
GCAAACATGTCATCACTCCCTT

Sequence 541

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACATTGGA
TTGTTAAAGAGGAGTCTAGAAAAATTAATCCTGAACCCTAAAGAATAAATCTTAAGTGG
TGGATACATGGGTTGAATAGTGTGCTCCAAAATTCACATCCACTTGAACTTCAGAGAGT
GGCCATATTTGTAAATAAGGTATTTGCGGGTGTAAATCAGTTAAGGATCTCAAGATAAATT
CATCCTGAATTATAAGTTGTCCTTAAATCCAATTACTGGTATCCTTACAAGAAGGTGAGA
GGAGACAGAATAGAGCCATCTGAAAAGGGTCAGAAA

Sequence 542

CTAACACTACTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGAC
CCACGCGTCCGCAAAAATCAATCAAGGGTTCCTACTCAAGTAAAAAGCAACTTGTAGGAA
AATAATAGGGGATATATTTTGCTCATTAAAGGATCTTTTATAGTGGCTCTTGGTGCACTG
CCTGTGAGTTAGCCCTTATCCTCAAGGAGCAGCTTAAAAAAAAAAAAAAAAAANGT

Sequence 543

CTACTATAGGGCGATTGGANCCTCCCCGCGGTGGCGGCCGAGGTACTTCCTGGAAATCAA
TTAACTGAGTCTTTTGAAACCCCTAGAGAAGATAGGAGAAAATTGGTTCAGANCGAGCAT
TTAAATTAAGTCAGCAAAGTCAGAATTTAAATTGGGCAATTCTTGTCTACATTTTCTT
TACACTCAA

Sequence 544

CTNACTATAGGGCGANTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTGCCAAAGCC
TTAACTTAGATCGTTACTNATGTTTCTAAATCANGTGGAAGCACATTTCTTTTCTTCTT
CTTTTCTTTTACTGNNAATATCCTNATTCTNTATTTTACCAGTGGNGAATGTTTGAAT
AATTTCCATTTAGCTCAAGATTCAAGAAATGCAAAGTGCTATTTTATCAAATTTCTGAA
AGCCTACTGTCTTCTGCTTTGGAAGTCCCACAACAGCTCTTTAATTTCTTAAGCC

Sequence 545

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCATCACACAGAAGGAGG
AGGGAGCTAATCCAGTAACAAACATTCAAAGATTAAATTGTAGATATGCACCTCTGTATT
TGGCACTGTTGATTAATATTATAACACCTTCCTCTCAAAGACAGGCATTCTTAAGCGTTA
GTCACAATATACCAGAATTTGCTATTCATATTAACCACCTTTTAACTTTATAACAGT
AACCAATTATTATAGTTTAAAGAAACAAAACGCAATGAGAACTGGGAATGGAATTCAAAT
CCTCCAAATTTCTGCTATGCTCCAAGCTGCCATCCATAAAACAGGTTTAATTTGGGTAAT
TTTTCCATTGTGGGGAAGGGTCAACAAGAAACAATTTAAAGACAATATTTTCCAATACAA
ATAAAGACATACACTTTTGT

Sequence 546

TACTTAGGGCGATTGGNANNTCNCCGCGGNGGCGGCCGCCGGGCAGGTACAAGCTTCGA
CCCACGCGTCCGAAATAATAAAGCTAGAAGTAATTTTTCTTTTGTCTATTTTCCAAA
TTGACTCGATATTGATGGCTACTTTTGTAAAGTTTTATTTAAGNTTAAAGGGAATATTTA
TTGATCACCTCTATGTGCTCANTACCT

Sequence 547

TABLE 1
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TACTATAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT
TTCCAGTGCTAAAACATCAGATAAGAGCCTACCTGACATTTTGGAGAATTTGCTGNGCTG
GGATTGATATTCGCATTGCCTAAGAGTAAAAATAAGACGGACGCGTGGGTGGAAGCTT
GACCTGCCCCGGCGGCCGCCGCCGCCGCCGAGGTACCACAGGAGGCAGAAGGAAATCCTCA
ACCTTCCGAAGAAGGCGTAAGCCAGGAAGCAGAAGGAAACCCAGAGGAGGGCCGAATCA
GCCTGGCCAGGGATTTAAAGAGGACACACCCGTTAGGCATTTGGACCCTGAAGAAATGAT
AAGAGGAGTAGATGAGCTTGA

Sequence 548

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGCGGNAGGGTCGCGGTGGGTGGA
CTNANGCTAGAGAATTGTAATACGACTACTATAGGGATCTAGATCACGAGC

Sequence 549

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTTTTTTTTTTTTTTTT
TACCAGAACATCACATAAGTTTATTTAGATGTAACAGCAATGTTAAATGACAAGTTT
AATTCTTAAGTGCACCAAGTAACTTAGCCATTTAAGTATTTTTTAAGTTATCCCTCC
AAAAAACTGAGGGAGCTTTTCTTTCCACCACCACACCATGGTTTCCAATAGTTCTCTT
TTTGGAGGACTTTTCAATTGATGAGTAACTGCTTTAGATATTTAGAACTTCATTCCCC
AAATGAAAGCTAATCTGGACAACTATATATTGCATAGATTTCTCTACAGATTCTTGCT
TAAAA

Sequence 550

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGGATGAGGCGGGGA
GGTGGGACCCCCAAACATATATCAGCCCAACAGCCCTAAGTCTCCTTCTTTATTATTAGG
AAAACAACAACAACAACAACAAAAAATGGCGTCATGAATATGAACAGCATTGTCAGAT
GAATTAGTTGAAGTGGNTTTTTTTGTTTTTTTTTTTTTTTGAACCTGCCCC

Sequence 551

CTATAGGGCGAATNGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCANGTGCTTCGCCCCAC
GCGTCCGNAATAATTGGAAANGGCCATAGATTAAAAAGCTGAGAAAGTATATGGTAGGG
AGCACACTCCCACAAGTATGAAGTCTGNGATTACGACATCTCATAAATNCATGAGCACT
CATGTTGGCTTGCTTTGTAGCTATGAAGTACCCTGTATTATTGAAACGTCAGCATAATG
ACTGGAAGGAGAAATTGGTCCATTTAGAGCATTACTATTATGCTATCTGTCCATTTAA
TTAATAATTGCATTAATTCATTTAGAAGNGCTATTACATTNGTAGTAAGAAAGTAAA
TTCATATATAAATATTGATTATCAGATGGTTTACTTACAGATACTTATTTTCTGTAAA
ATAGGAGAGTTTACCTGAAGAAAAATAAACTTTTNACTTTTCTGGGAAAAAA

Sequence 552

CTACTTAGGGCGAATTGGAGCTCCCCGCGNGGCCGCCGCCCGGGCAGGTACCAAGTGAA
TTTAAATAATTGGTGTGGATTGGCCAGTAGCTAAGAAGTGGGCTTTTAAAGAGTNTTGAA
NATNGAANGGGTTTTNTTCTTTTTTAAAAAAGAAAAACAACTATTGATTGTCTATAA
TGAAAGCTAGGNNTTGCCTNTTATGTNTACTCTCCTTCCAAATAGTTATATCCAAA
CTGTTTTCCCTCTCCCTACCTTGTCCCCCTATTAAATANAAACNNGGATTGATTAA
TGTCCGCTCCTGAATACATGTAAAATTTGTACCTCGGCCGNTCTAAACTAG

Sequence 553

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTC
CGCTTGTAATAAAAAACAAACATTGCTAAATAAAACAACCTGAGAAAATCTCCAGAGA
ACTATACTGAGTGAAGGAAGAAAAATCCCCAAGATTACACACTGTATGTCATTTATATA
ACATTCTTGAATGACACAATCACAGAAATAGAGAATACTGGTCACTANTGCATTAAGGA
AGGTGTGGAAGGATGTAGTGATGGGAGGAAATGTGTATGGCTGTAAACAGGGCAACAGAGG
CNTCATTGTGATGATGGAAGTGTCTGTNTCTTGGGTTTTTTGAATGTCA

Sequence 554

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGTTAAAGGAATAATCTGCAG
AACATCTTGATTTACAAGGGACAAAATGATGCAATTATGCTGNCCAACCTACTGGTG
AACTGGATCAGAATGGTCCAAGGACTGTAAACAGAGGAAGTNTTACATTTGAAAAC

Sequence 555

TABLE 1
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CTACTTAGGGCGAATTGNANCTCCCCGCGGGGCGGCCGCTAAAGGAATAATCTGCAGAA
CATCTTGATTTACAAGGGACAAAATGATGCAAATTATATGCTGTCCAACCTACTGGTGAA
CTGGATCAGAATGGTCCAAGGACTGTAAACAGAGGAAGTNTTACATTTTGAAAACCTG
CGGACGCGTGGGTGAAGCTTGACACCTT

Sequence 556

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTGG
TTTTGGTTTGTTTTTGGGCTCTCAGGTTTACCACTCTCTCCCATCTTCCAGGTTTAG
GAGGCAGGCCTCTNCCTTTCTACCCTCCCACCCGAAGGTGAGTCACTAGAGTGTTACAA
GCTTACTGGCAGGGAACACTACAAATTAACAAACAGTAAGTTACCAAAAGGGGATACACC
CTTATAAAAGGGTACCTN

Sequence 557

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCACGCGT
CCGCTTTCAATAGATCGCAGCGAGGGAGCTGCTCTGCTACGTCACAATCTTCAAAAAA
TGAACATGTAAGAAAAAGCAGTTTTTCATTGTGCTAATTATTGCAGGCCTTCATGCACGTA
AACCTCAACAAAATGTGTGCCAACAATATACAAATTTCCATATAAACAAAGTCATTGATC
ACTAACAAAATATAAACATGGNTTCTTTTATATTAGATTTTTTTTAAAAAAAGCTATTT
ACCAGCAAGAAAAACAAGTACCTGCCCG

Sequence 558

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGC
ATTTATTAAGGCTTGTATATGTTCAAGATCCAGTGAAGACTGTCTTGGCGGTGTATAATT
GATCTTAACCACAAGGCTGAGAAGTTATGTGCAGGGCTTATGATGCTACTTCCAAAGTAT
TAAATCCTCCAGAGAAGCCTGTAGTGTGGGATGCAAACTATTTTAAGTGTGACCATGAGG
TGTTTTTTGTGGACCATTTTAAANCCAATGATAGGTTCTAAAGCAATCTCAACCTGAGT
TAGG

Sequence 559

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGGCTTCGACCCACGCGT
CCGCTCCAGGAGACTTCTGCTTACCTCTCAGTGATCAAAAACCGTTTACCACAGTTACT
TACCACGTCTACCGATCCGCATTCTCGCAAGTGTCTTCACTCCATTTACTCTACTGCA
TTTTTCACTGTATTTCTCATGCCAAAACCTGGGCTTCTCCACCACTCTGCACACGTTCT
GCTCTCAATTCTCACAGCCATCTATTTCTTCCACTAAACTGTTAGAGGGATTCTGN
AGAAATTAAGAAATTCCTATCACTCCTAAAAAAGTGCGGCCGCTCTAG
AAGTAG

Sequence 560

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAGCTTCGACCCACG
CGTCCGCAAGTTTTCAAAATGTAAATACTTCTCTGTTTAAACAGTCCTTGGACCATTCTG
ATCCAGTTCACCAAGTAGGTTGGACAGCATATAATTTGCATCATTTTGTCCCTTGTAATC
AAGATGTTCTGCAGATTATTCCTTTAA

Sequence 561

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGCTTTATTTATTTCTT
TTAGGAATTGCAGGTTCTTAACAAAGTAGGGGTGAGGGGGGTGTTACAAACCAGTCACTA
GGCAGGAACATTAGACTCCAAAAGCAGAGAAATGCTTAATTTTCTTCTACCTGTTTCAC
CACATTCATGTANAACGTAGTAAAAAAGATGGNGAATCAGGCTGAATCAATCTAAATAA
CAACTTAAGGCTCCCAAATCACATGAACCTAGGACCACTAAATCCAATGTCAGACGTGTT
TAAATGGNGCACTGCTCTACATTTTCTATTATGCAAAGAGCTAGAAAATAATGGTAGTG
TCATTATGACATTCCATGAAAATGAAGAAAATCTTTCANGAAAAATTTAGAAAATAAAAA
TGTTTACT

Sequence 562

TTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGCGGCGAGGTGCCAAAGCCTTA
TAGATTGTTACTTATGTTTCTAAATCTGNNGAAGCACATTTCTTTTCTTCTTTTCT
TTTACTGNTAATATCCTTATTCTCTATTTTACCAGTGGAGAATGTTTAGTATTAATTTCC
ATTTAGCTCAAGATTCAAGAAATGCAAAGTGCTATTTTATCAAATTTCTGAAAGCCTAC

TABLE 1
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TGCTTCTGCTTTGGAAGTCCCACAACAGCTCTTTAATTTCTTAAGCCCCACTTTCTC
ATCAGCAAGTTGGTGTGGCAATGGATCATAATAGGTTGCTGGGAGGATGAAGTGAGCGGA
CGCGTGGGTCGAAGCTTGACCT

Sequence 563

CTACTATAGGGCGAATNGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCAGTAATCACATA
AATTCTGCAATCATCTGTTTATTTAGCTTAAGTGTTTTTTTTTTTTATTTGTTGAAGTTGT
TGTTGTTATTNCAGTCTTTTTCTTATTGGGTTGACCAGACTTGGTAAAATCTGTAAGAAA
GTTCCATAAT

Sequence 564

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTTCTTCAGATTCAAAT
GCCAACACTAATTTGAACTTCTTTGGGTCTATGACAGTTTGCAAGCCATACAAACCCAAA
GAGCTAATCTGTGATTCTTAACCTGAGAAAATAATAATNATAACCACCACTGGAACCTA
CATAGGTTTGTNGNTTATTTAACATGACTTAACCTTTTGTGTATTTTTTTGAIAAAAAA
AAAAAAAAGTGACCTGCCCGGGGCGGCCGACGCGCGGCAGGTGCGNCTCAAATTNT
TNAATTTNTTTTGGAAAGACANGNATTTTTTATTTTGCCAANGCTAAAACCTNACNCTG
GGCCTTTAAAGGGGATTCCNTNCTGGCCTTTGGGCCNCCAAAAAGTGCTGGGATTNTN
GGGTNNAACCCCGNGGGGCCCTAGCCTACCAGTTTTTTTTAA

Sequence 565

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCC
GTGCAAATTTGACTTTGTAAATGGCCCTTGGGCTCTGGGAGGAAAGCAACTGTTGGGCCA
TGTGGTTGTATCTTTAGTTTTGTAAAGAATTGCCAACTGTTTTATAATGTGGGTATATC
TTCCACACTTCAGCACAAATGTATGAGTGATCCAGTTTCTTAGCACCATAGTCAGAATT
TACTGTTGCTACTATTTTTAGCTATCCTGATAGATGTGTAGTGATTTTTATTCTGGTT
TTGAAGCAGTGTCATTGTCTGGGGTAAATCCTTGAGGTTTGTGTCTCAGTCAAGGGGAA
TCAAGGGACATGGACACACAAGTAGTGAATTTAAGAGTGGAAGTTTAATAGGTGA

Sequence 566

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCCGGGCAGGTCAAGCTTCGAC
CCACGCGTCCGTCTTATTTTTACTCTTAGGCAATGCGGAATATCAATCCCAGCACAGCA
AATTCTCAAATGTCAAGTAGGCTCTTATCTGATGTTTTAGCACTGGAAAAAAAAAAAAA
AAAAAAGT

Sequence 567

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCCGGGGCAGGTCAAGCTTCGAC
CCACGCGTCCGCATATTTTCATTACTTGACAATGTGGGATGGGTGCAATTTATTCCATCT
TCACTAAAATAGAAGCAATTCATAGGTACCATAAACCTATTTTAGGTACCACAAGGTGT
CTTTTACACAGCTCATTTGAATACAGGTGTTCTGAGAAGGGGTTTCTATTTTAAATTA
CCATATCAAATAAATGTGCCTTATTTTTTATAAGNCTTGTTAAATCAGTGTCATATT
ACTGTTTGGGGAAGG

Sequence 568

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAATAAGCCCACCCCACT
AGGAACTATGTTAAAAAAAATTCAAGAAAGAATTTAAGGGAGATTACAGTGTTACTGTG
ACACCAGGAAAACCTTAGAACTTTGTGTGAAATAGACTGGCCAGCATTAGAGGTGGGTTGG
CCATCAGAAGGAAGCCTGGACAGGTCCCTTGTTTCAAAGGTATGACACAAGGTAACCCGT
AAGCCAAGGCACCCAGACAGTTTCCATACATAGAAAGTTACAGCTGCTTTTATACCCC
TTGCCCCGCCAACGTAGTTAAGAGAACAGCAGCATAAGCGGCTGGCAGAGGCAAGGAAAG
ACCAGTNNAGAGAAAAAAGGCCATCTATACCAATTCTAAG

Sequence 569

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCCGGGCAGGTACGAGCGGCCGNC
CGGGCAGGTACACAAACCAGATGTATGCANTGATGCCAAAAGTCATCTNAAAATTCGAAG
CTGACCTAGTGCAACACATTTACACTTGGATAAACTATCACCTTGAAGATTTACTTTGTA
TACTTCAAAGATCTGGTCATGAAATTTTATAGCTAATACATAAAGNGCCGAATTGAAATC
CAGAATACAATAGCTNTGAAGGGCCGCTAGAGTGACAGATAACCAACCCATTCTACCTAAC

TABLE 1
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TCAGGTTGAGATTGCTTTAGAACCTATCATTGGGCTTTAAATGGTCCACAAAAAACAC
CTCATGGGCACACTTAAATAGTTTGCATCCACACTACAGGCTTCTCTGGAGGGATTTA
ATACTTTGGG

Sequence 570

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTATTTCCCTCAGTAAC
ATGTAATTGCTACATTTTTTATAAGAAGGTATGGTTAGAAAAAATGTGAAAGATCACTT
AAACCAAAGCCAGTTACAAGGAGTAATCTCTCCTGTTGGTTACCTTCACCTCANAATA
CAAGAATATTACAATACATAGTGAATAGTTGTCTGTAAACATTTCTACCAGTTGTTTCANT
AGCATATTGGTCTTGGCATTCTTGGCACTGTGGTTCTGCTGTATTATTTGTGATGTCTT
ATTGTTTGTGAGCTTTTGTTTTTTTTTAAAGAAAAACAAAACTAAGTG

Sequence 571

TAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCCAGTAATCACATA
AATTCTGCAATCATCTGTTTATTTAGCTTAACTGNTTTTTTTATTTGNTGAAGTTGTTG
TGTGTTATTTCAAGCTTTTCTTATTGGGTTGACCAGACTTGGTAAAATCTGTAAGAAAG
NTCCATAATTATGGGGAAGATTCCTCTGAATTGGCTAAATTCCTGTAGCTGAAAAAAA
AAAAAAAAAAAAAGT

Sequence 572

TTAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAGCTTCGACCCACGCGT
CCGCAAGTTTTCAAATGTAAATACTTCCTCTGTTAACAGTCCTTGGACCATTCGTATC
CAGTTCACCAGTAGGTTGGACAGCATATAATTTGCATCATTTTGTCCCTTGTAATCAAG
ATGTTCTGCAGATTATTCCTTTAA

Sequence 573

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTACGGC
TTCTGACAGGCCTCAGAAGAACATTCCCTACCCAAAATTATAAAAAATAATCTTGATAT
ATTCTTCTCAAACTTTTATACTTTTTTTAAGGCTTGGATTTTTAATCTATCTGGAATGTA
TTTTTAAATACTGAGTGAGTCACTTTTCTCCGGACGCGTGGGTCTGAAGACCT

Sequence 574

GAATTGGAGCTCCCCGNGGTGGGGCCGCTCGAGGCCGCTCTGACCTCTTTAAGGNANACT
TATTATGCTAATAGTTGATGCGCCCTTTGCTGNANCAGTTACCATAGGTTACATGATAA
NTATATATTGTTGNGATGATCTGATTNCCTGNNTNCCCCACCCNTGCAAAACAACAACAA
AAACCTTACCAGGCTNTATAACANGGGGACCAAACTTGNTTTTGCTCATCATTGCCGGA
CG

Sequence 575

AGGTAATTACCCAGACAACGACGCCGCTTACCATGATGATGGACAACAGGCAACTTTT
TTTTTGGAGTTTCAGCTTGCTTCCAACAGGGACGGTGAGTGTGAGGTTTATTCCTATTC
TAAGACGATAGAAGTTTTTCAGCCTAAGCCGTATTCTAGGTAAGCAGCTGGATTGCAAGT
TTTGTCTTGGAATTCTCCTTAATGACTAAAAGTTAAAGAATTAACAACCTAGCTGGGC
TTAAATTTCTTNCTTACCCATTAGAAGTACCCTTGCCC

Sequence 576

TAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGNGGTCTAAGAGACAGGGTCTCACTACA
TTGCCTAGATTGGNCTCACACTCCTGGGCTCAAGCAATCTTCCTCTCTTGGCCTCCCAAA
GTGTTGGGATTGCAGGTGTGCGCCACTAGGCCAGCTTGAAAAATTTTAAATGCATGTGG
TAATCCACAGGAGATCACATTTAGTATATGACCAAGTTAATTAAGAAGNCAAAAAACACG
TTAAATTTAAGCAGAATAAGGCTGGGTTCCGTGGCTCATGTTAGTTTTTATCCTTAAAT
TGTCTGAGTTCTTAGAACACAGAAAAACAAATTTGAATGCATTTCTAACAGCTTAATAA
TTTATATGTCCCATTATG

Sequence 577

GGGGNGGCGGCCGCCGGGCAGGTCAATGCTTCGACCCACGCGTCCGATTTTCAGGTTGAC
TTTTCTACCTTTAACCTCTTTATATAGCACAGTGCAATCTGGCCCTACTGCCACTTCAT
CTGGGTTATCTGTAGCTTGAGTTGTAAAAAAGTGCAGGCGGACCT

Sequence 578

TABLE 1

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AGGTGTCGACTCAAGCTTTCAGATATAGGCATTCCAGAATCTTCTCTTTACGAGTTCACC
TGCTAGTATAATCTCCACAACCTTGAATGGCATTGGTTGTTCTGTAATTCCTGCCAAAAGC
ATCACAAGTTGTACCTGCCCCG

Sequence 579

CCGGGCAGGTTACAAGTCGACCCACGCGTCCGCTTCAGAATATCCAATTCATGTGAACTA
CAGGAAATTATAGTTTAGATATTTTAAATGATTGGCCTGTACCGTATAACACAAGGGT
GTCATGACCAAGCTAGATCTCTTACCATATCATTAAATAAAAGTCAAATTTTAAATTTGT
GCCAATTTGGCTGGGTGTGGTGGCTCATTCTGTGATTCCAGCACTTTGGGAGACCT

Sequence 580

GTGAACCTGCCCGGGCGGCCGCGCACTTTTTTTTTTTTTTTTTTTTCTTTTGAGACA
CAGTCTCACTCTTGCCAGGTTGGTCTAAAACCTCGGGCTCAAGCAATCCTCCCGCTTT
CAGCCTCCCAAAGTGCTGGGGTTACAGCCGTGTGCCACTGTGTCTGGCCCTTTTCTTTT
CATAGGAGAAGGGTTGTTGACTCCAGGAAACGTACCTGGAACCAAGAATGTGAACTCA
AGGACCCCGCCTGTTGGCAGCTGCATTACTTGACTCCTGTTCACTGTTTCTTAGCCTT
GTCCTTCTCTCCTGCCAGTCTAGGGGACACTGCTTCTCCTGGTTGACCTC

Sequence 581

CCGGGCAGGTACCCTAAAACCTTAAAGTATAATAAAAAAAGATTATTTCTATACTTCAA
AATCAACAAGATTTGATTGCATTTAAATTTTCTGTCCATTTGTTCTTCTATGTAATACT
TTAAAAATAATTGGCATAAAAAATTCAATCAATTCATAAAAGTCCAAAGCAAAAAAACA
ATCTACTGACATCTCTTGAGGAAGAAATGATCAGGATTGACATTAATGAACCCTCTCACA
GAGACCACTACACACACACACAAAAAGAAGGATGGGTGAATGGATGCAGAGAGAATTT
AATAAGACTGAAATGATGCCATACATGCTTTTAAAAAATAAAAAAGTATTAATTTTAA

Sequence 582

CCGGGCAGGTACTTATACTAGAAGATGCTCCAAGGTTTCAGAAAGGAATTAATTACTTTC
AATTTGCACAATTTAGAACAATATCTGGCTTTTCCCTAAGCTTAATGATTTTCCATTTT
ACACAATAAAATATAATAGCATTATTTTATAATCAAGTTTAACTGATGGTCTATGATAG
TAGAGCGATTTAGTATTTTGACAAAACTTTATGAGACATGAAGTCATTCAATTTGCCGG
ACGCGTGGGTGCACTCAAGCTAGACCT

Sequence 583

AGGTGCGCCATCACACCCGGCTAATTTTTTTGTATTTTATAGTAGAGACAGGGTTTCACCA
TGCTAGCCAGGATGGTCTCAATCTCCTGATCTCGTGATCCGCCCACCTCAGCCTTCCAA
GTGCTGGGATTAAGGCGTGAGCCACCACGCCTGGCCAGGAGATTCTTAATTATTTCTGA
ACTCTATCAGTTTGTATTAGGACATCTTATTTAATATTATCAAAAGATAGTTCCTCTTA
GAGGCATAAATCAGTCAATCAACAAACAATAGGCAATCACGGACGCGTGGGTGCAAGACC
TGCCCCG

Sequence 584

AGGTGTACAAGCTTCGACCCACGCGTCCGCATTTTTCTGGTGTTCCCTCTTACGTGCACA
CCCCTTGCTCCCTTTGGGTTGACTTATAATCTGACTTTTGTGACAGATGTTAGGAGGTG
GAGCAAAGGAATTTAGACCAATCAGTTAAGAGACTGCTGTGGGGTAAGAAAAAATTA
GCCTCTTAAATTAATCTTATCAAAGGAAAAAAGTTGGAAGCACATGATAGTATAACCA
GAAACATGACACAGAAGAATTAAGGGAAGAACCTGCCCCG

Sequence 585

CCGGGCAGGTGGAAGGTGGGTGGGGAGAGGGAGGCTTATTTGTTGCTGCAGTGTAACCTA
AGTGAAACCTAATTCATATGACTCAAACCTAAGGTATATTTGGTTAGATCTAGGTGAGTTC
TACTTTAGAGGAAATCCTGGTAACCTGTTGTTTGTGTAAGTTATAGCTGTAATTAATTT
TCCCTGTATTCAAAGCCCCCAAACCTGCATTCAGATACTATGCATTTAGACTTCCTTAG
GCAAAGTCAAGGCAACAAGCTGATGATTCTAAGCTATTATTCAAGGAGTATCTACCATCA
TAAAGGTGGTTTAGTCATATAGATAATATCAATCAATAAT

Sequence 586

CCGGGCAGGTCTTCGACCCACGCGTCCGTGATTGCCTATTGTTTGTGATTGACTGATTT
ATGCCTCTAAGAGGAACTATCTTTTGATAATATTAATAAGATGTCCTAATACAAAACCTG

TABLE 1

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ATAGAGTTCAGAAATAATTAAGAATCTCCTGGCCAGGCGTGGTGGCTCACGCCTTTAATC
CCAGCACTTTGGAAGGCTGAGGTGGGCGGATCACGAGATCAGGAGATTGAGACCATCCTG
GCTAGCATGGTGAAACCCTGTCTCTACTAAAAATACAAAAAAATTAGCCGGGTGTGATG
GCGACCT

Sequence 587

AGGTACATTGTTAGACAAGTGTTTATCACTAATCTGGAATACATCATCTTCAATAAGGCT
CTTGTTTTCTCCAAGCTGCACTGCTCACACTGCTCAGTTTTCTGTTAAGCAACCTGCTC
ATTATAGTAGAGCACCAAGGTGATCTGTTCTTCTGTTCTTCAGAAGTTCATATTTCTTG
TTGCAACAGGGCTACATGATTTTAAGATTCTCAAAGTCAATACGAATTAACATTATTT
CCATTTCCATTCTGTATATCTTCACATTCCATAAATAATACTCATGTATACGTTAAAT
TTCCTTATAAGTTCAACACATTGAAAGCTAAAATAAAGACTTCCTACTAG

Sequence 588

CCGGGCAGGTACACAAACCAGATGTATGCAATGATGCCAAAAGTCATCTCAAAATTCCAA
GCTGACCTAGTGCAACACATTTACACTTGGATAAACTATCACCTTGAAGATTTACTTTGT
ATACTTCAAAAGATCTGGTCATGAAATTTTTAGCTAATACATAAAGTGCCGAATTGAAAT
CCAGAATACAATAGCTATGAAGGGCCGCTAGAGTGCAGATAACCAACCCATTCTACCTAA
CTCAGGTTGAGATTGCTTTAGAACCTATCATTGGCTTTAAAATGGTCCACAAAAAACAC
CTCATGGTCACACTTAAATAGTTTGCATCCACACTA

Sequence 589

CCGGGCAGGTGACTTGGCTGTGAAAAGTGCTAAAACAGATAAAAGACTATACTGACAGGC
AAATGGAGCCTGTTATGACACTGACATTGAAGGTGAAAGGAGAATCCAGTTCACATTAGC
CAGGGTCTCAGGGACCAGGTTTTGAGGCAGTATTTCTGCCTCTTGAGGACAGGGCAGAGC
AGGTGGGTAAAAAGCAAAGAGACCAGGGAAGGGGGACTAAAAGTAAGGGAAACAGCATCT
GAGGAAAGGCTCCTCTGACTGGATTTTACAAACATTATTTATTAACCTCACTAAACAAG
GATAATGGGACAAAACAGGGGCAAGCTGGAAAACAGCAGGGGTATTTGGCAG

Sequence 590

CCGGGCAGGTACATCACCTGCTGAGGGACATCCAGGACAAGGTCACCACACTCTACAAA
GGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGACGATGGACTCC
GTGTTGGTCACTGNCAAGGCATTGTTCTCCTCCAATTTGGACCCAGCCTGTTGGAGCAA
GTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCCACCTACCAATTG
GTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACCAACAAGCAGCTCCAGC
ACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACCATATTCCCAGGAC

Sequence 591

CCGGGCAGGTGGAAGGTGGGTGGGGAGAGGGAGGCTTATTTGTTGCTGCAGTGTAACCTA
AGTGAAACCTAATTCATATGACTCAAACCTAAGGTATATTTGGTTAGATCTAGGTGAGTTC
TACTTTAGAGGAAATCCTGGTAACCTGTTGTTTGTGTAAGTTATAGCTGTAATTAATTT
TCCCTGTATTCAAAGCCCCCAAACCCTGCATTGAGATACTATGCATTTAGACTTCCTTAG
GCAAAGTCAAGGCAACAAGCTGATGATTCTAAGCTATTATTCAAGGAGTATCTACCATCA
TAAAGGTGGTTTAG

Sequence 592

AGGTCAAGCTTCGACCCACGCGTCCGCAGCCTGGGTGATAGTGAGATCCTGTCTTAAAAAT
GAAGAAAGAAAGAAAAAAGAATGAGAAGGAAGGATATTAATTGAAGTAAGAGCACATTT
GATTACAAAATAGAAGAGGAGTAAGTGAGAACTAAACGGGGAATACAGATAGCAGAGATT
AAATAGGCTATAAGAAAAAAAAGGGATGATAATAAGACCATGGTAGTACCTGCCCG

Sequence 593

AGGGCCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGTTTA
CAATATGGTGACAACAGATAACTGTAAAACTTCTTTTTCAAATAGAACCAGCAGGAGCA
TGCATGGAACACATATACCAAACATCTTCTGATAACATTAAACATTTTTAAAGATGTT
AAATGTTCTTTTCATTGNGGTGCTTCAGATTCTGATTCTAGAACTTGTGTGTGTGGAAC
CTGTGTGCTAACTATTCTGTTGGAATTTACCAGCAAAGAATTATCTAAGAATTTTCAAAC
TAAATGATGGGGGAAGGAACCTAACATTTTTGCAGNCCCTGGAAATGTAAATGTTGTACC

TABLE 1
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Sequence 594

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAATAAATAGC
ATTCCCACGGTGACCACAAGTCTTGGAATCAGTTCAGGTGTCGTCGTGGCCGTTGACAC
CGCTGCCTTCTGACGGTAAATGTATTGTAGAATTCATGTTGTTATCAGGCTTCAGTTTCC
TCATCTCTAAAATGAGAGGATTGGATAAGTTAGTAGTTTCTAATTTTACTTTTAATCAG
TGGCATCTCCCATTTATTTTTCATTTGAAATAAACTTTTGAATTTTATCTTCTACCTAA
ATAACATATTTTGTATTTATGTTTCAAGATGAAGCTCACACTGAGTTGGAAAAAAGGAAAA
AGCAAAGGATCAAAGCTG

Sequence 595

CTATAGGGCCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTGCCAAAGCCTT
AAGTTAGATTGTTACTTATGTTTCTAAATCTGTGGAAGCACATTTCTTTTCTTCTTCTT
TTCTTTTACTGTTAATATCCTTATTCTCTATTTTACCAGTGGAGAATGTTTAGTATTAAT
TTCCATTTAGCTCAAGATTCAAGAAATGCANAGTGCTATTTTATCAAATTTCTGAAAGC
CTACTGTCTTCTGCTTTGGAAGTCCCACAACAGCTCTTAATTTCTTAAGCCCCACTTT
CCTCATCAGCAAGTTGGTGTGGCANTGGATCATANTAGGTTGCTGGGAGGATGAAGTGA

Sequence 596

ATGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGA
TTATTCTCTCCATTTAGGCTATAAATCTTTCAGTGTAGGGTGTTTCTAATGTCATATTCT
TCCAAAAAATAAAAAAAAAAAGT

Sequence 597

CCGGGCAGGTCTTCGACCCACGCGTCCGGCTCTCCAGTTTATACATGAAGAACTTTCCG
AAAGTCTTGACAGCTTGTGGAGAGCAGAGCTGGAGAGCAGGCTAGTCTGATTTTAGAAGGG
AGTTAACCATTACATAACCTGCAGGTGGCTTCTCCCCATACCTGCCGTGGGATAATATGG
CTCACTTTTACTTCATTTACAATATTTAATAAGTGCGATTTTAGACTTGAGAAGAGAAT
ATTTTCTGCTAAAATTATCCCCACTAGAGATAATCACCAGTGAATTAATACACTGCAGCA
ACGGAACCAAGTCAGCTTTTTTGGTAATCATTCCCTTCCT

Sequence 598

CCGGGCAGGTCTTCNACCCACGCGTCCGGCTCTCCAGTTTATACATGAAGAACTTTCCG
AAAGTCTTGACAGCTTGTGGAGAGCAGAGCTGGAGAGCAGGCTAGTCTGATTTTAGAAGGG
AGTTAACCATTACATAACCTGCAGGTGGCTTCTCCCCATACCTGCCGTAGGGATAATATG
GCTCACTTTTACTNCAATTTACAATATTCAATAAAGTGCGATTTTAGACTTGAGANGAGA
ATATTTTCTNCTNAAATTTATCCCNCTAGAGATAATNNACCAGTGAATTNATACTGC
ACCNACGGAAACCAAGTCA

Sequence 599

AGGTGCTTCGACCCACGCGTCCGGTATTTCTCTTAAAGTTAATTTTGATAGATATTTATC
TAGATGCTTTCTTTTTTCCCTTGCCATAATAGCTGGCTTGATAGAGAGAGTTATGTTTGAA
AAGGCTTGCCTTTTTCCGTCGCTCTG

Sequence 600

AGGTCAAGCTTCGACCCACGCGTCCGTGATGCTGGCTTCCCGGTCAAAGCTGAGGAGTTT
TGTGGTGCTTTCTCAGGAACCTTCTGTACGGAAACCAATTGCACCCAAAATTGCAAGACC
TTTCATAGAGACTTTCTCAGGCCCTCAAGAGTATTTGAGTATCTGGAGGAGGATGCCCA
GAAGTCCNCACAGGAGGGGGTGCTTGGGACCACACACTGATGCTCTTGNCATTGAGACTC
TGAGAAACATGCCGCGTGATGAANAAACCATCCCAATTANANGAAGCTAGCTGNNTTNCA
TTGNAGCAGCTTTACCCCAATTT

Sequence 601

CCGGGCAGGTCAAGCTTCGACCCACGCGTCCGTGATAACTTCTCCTAAGTGCCAGGCATT
GTATTACATGCTGGGAGCACAAAGATGAATAATAACAATAGGTTACAGAAAAGATGAAT
TGATTGAGAGAAAAAGAACCTCCAGGAGCCCTCAGCGTAGTAGGGGGTTGGTGTGGAG
GGTGGAGGAATGGAAAAGGNCCTGAAATGCANGCAGAGAAATGATGAAACAATTCCNGGG
GCTGCGGNGAGGTTANATGAATATCTTTACAGCAGCCTNGAAGACTGATCANGTTACTAT

TABLE 1
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ACCCTCTCTTCTGTCCACGTGCATTNA

Sequence 602

CCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCATTTATTAAGGCTTGTATATGT
TCAAGATCCAGTGAAGACTGTCTTGGGCGTGTATAATTGATCTTAACCACAAGGCTGAGA
AGTTATGTGCAGGGCTTATGATGCTACTTCCAAAGTATTAATCCTCCAGAGAAGCCTGT
AGTGTGGGATGCAAACTATTTTAAGTGTGACCATGAGGTGTTTTTTGTGGACCATTTTA
AAGCCAATGATAGGTTCTAAAGCAATCTCAACCTGAGTTAGGTAGAATGGGTTGGTTATC
TGCACTCTAGCGGCCCTTCATAGCTATTGTATTCTGGATTTC AATTCGGCACTTTATGTA
T

Sequence 603

ATTGGAGCCTCCCCGCGGTGGCGGCCGAGGTAGCTTGAGTCGACCCACGCGTCCGTTTCAG
ATCCGTTTCAGAAACGTGAGTCTCTAGCTCAGGAGATTTCCACAACGTCTTAGTAACC
TGATCTTATTCTCATGTTTAACCTTGGCAGTGGGAAGTTCTTCCTGGTATCCTGCCTAAT
TACTGGAGTTGGCATTAAATGCCATTTCCCCCTAAGGCGTGGCTCTTGGACCAGTATCAC
CTGAGAATTTGATAGACATAGACCCAGAGTTACTGAGGGCAGGTGCTCTGTTTTGGGGAC
CAGCAATCGGTGCTTTAGCAAGTNCTTTGGGTGATAGGGGTTNTGGAACTACTGCTCTA
AAGCATNATCTGTTTTTGAC

Sequence 604

GGTACCCAAAAGATATCACTGTGAAGGTTTGGATACACTGACTGAGGAAAAAAGAAGGTC
CTGAAAGCGTNTAGACAAAAAAGACTACTTGTAAGTTGCAAGAATCAGAATGGCATTGG
ACTTCTCAGCTTTCCTCATTAGAAGTTTAAGATCTGAAGCAATCTTTAAACTCGTGAGGA
AATTAAGTCTAATAAATANTTTTCTTCTTAGCCCAAACAATCAAATGTGAAGCTAGAAT
AAGCATTTTCAGGTAAAAAAGTGC

Sequence 605

CCGGGCAGGTACANNTTGTGATGATTTTGGCAGCAATTACAGAACCAAGGCCATTCA
AGTTGTGGAGATTATACTAGCAGGTGAACCTCGTAAAGAGAAGATTCTGGAATGCCTATAT
CTGAAATCAGAATCCTAGTAGTTTGTAGTTTGCCTCTTCCTAGAAGTTCAAGAGACTCAA
GTCATAGGCTACAGATGTACCTN

Sequence 606

AGGTCTTCGACCCACGCGTCCGCAACTGTTGATCTAACTTTTCCACTTGAATGTCTAATT
GGCAAATCAAACCTAACATGTTCCAAACGAGTTCTGAAGCACCCCTCTGCCAAATCTAC
GTCTCCACAGCCTTCCCTATTTCTCTACCTGGTACCTGCCCGGGCGGCCGCTCGACCTG
CCCG

Sequence 607

AGGTCTTGAGTCGACCCACGCGTCCGGAGATGTATACGCCACTATAGGAACTATAAGAAA
AAGTCAAATGGAAATCTTATAAATAAAAAACACAGTCACTATAATGAGGAAATACTTTGA
TAAGGTGTCAGTGAACCTAAAAATCAATCAATAGAACTACTCAAATAAACTCAAAGA
GAAAAAAGATGGGAGATAATTATTTTAAAGAAATTGGTCATCAAATGTAGCAACAA
GTTTGCCTTATCCTATATCATTTGAATTTTCAAAAAATAAGCTCATTATACAATCTTTAA
AATATTTTGAATAGAACTGTTTCATGTGTTATTTGT

Sequence 608

AGGTCAAGCTTCGACCCACGCGTCCGGGGAACCTTGTTTCAGGTTCTTTTATAGGCAACCC
AAGCCAAGACAACAAAGTAAGATAGAGCCCCAAATGTGGTCGTATAAGGTTTTTCAAAGA
AAGTAACACTTGAGTTAGGTCTTAAAGTTTACCTAAGAACTGCCAGGTGGACAAGAA
GAAAGGGTGTTCCAAGTAGAAATAATAGCATGGACAAAGGCAATGTAGCAGGAAAAGTCT
TCGTAAATTCAGGGAATTTCAAGTGTTTACGATGGAAGGAGCAATAGAGTCATTTACTT
GCGGTGGCAGGGGATGTTGAAATGTAACAAGAGTGAGATAC

Sequence 609

AGGTCAAGCTTCGACCCACGCGTCCGTGATGCTGGCTTCCCGGTCAAAGCTGAGGAGTTT
GTGGTACTTTCTCAGGAACCTTCTGTCACGGAACCATTCACCCAAAATTGCAAGACCT
TTCATAGAGACTTTCCTCAGGCCCTCAAGAGTATTGAGTATCTGGAGGAGGATGCCAGA

TABLE 1
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AGTCCGCACAGGAGGGGGTGCTGGGACCACACACTGATGCTCTGTCATCAGACTCTGAGA
ACATGCCGTGTGATGAAGAACCATCCCAATTAGAGGAGCTAGCTGACTTCATGGAGCAGC
TTACACCAATTGAA

Sequence 610

ACTTTTTTTTTTTTTTTAGCTTGAGTCGACCCACGCGTCCGGGGATCTAGATCACGAGCG
GCCGGCCGCCCGGGCAGGTACGGAAGCCATGCACTTGCCCTCTCCTTCAGAGCTGGGATT
TTTTTCATTTTGCTGGCTGTGAGCACACACAGCCACAGGTGCCTAAGCCTCTTGATG
TGTGTTTTGAACTGTGTCCTCTGAGTTCTGTGTCTGGGTGCATGCTCTCCTCTTAGCGTG
GGTCTCCTTCCCCTGTGTAGCACTTCACAATGTTAGGCATTTGTCTGTGATAGCAGCTGT
TCAGTAATTTCTACTT

Sequence 611

AGGTTTCGACCCACGCGTCCGGAATTTATCTGGCCAGGCATTGGTAGTTTACAGAAGTCT
ACCAGATGATTCTAATGTGTGGTCAAGACTGAGAACTATGTGTTAATTGGGTTCAATTC
AAGAATACTGTAAAAATTTTATCTAAATACTAAATATCCATAAAAGAAACCTCGGTAATC
AGGCCAGGTTTTTGAGTTTTTCCAGATTAGCCCAACTACAGGGGAAAGAGACTTTTCGCAC
TATATCCCAGAGTCTCTGCTCCTGCTTCCAGCCTCAATGCACTGGGCCTTTCTGCTGCCT
TGGAGCACTTAGAGGGATTACAGGAGGAGTGATCTGTGGAGTT

Sequence 612

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCAGCGCCCGGGCAGGTACATACAGCCTGAAG
TTAACCTTTCTATGTTAAATGAAAAAACTTTGTCATTATCAGGTCACAGAAACCAAAAA
CTAAACAATGCAAAAAAAAAAAAAATCTAAAAATAAAAGAAATTTTATATTTGAAGTTATTC
TGGATATTCGCACCATTTTAGCTTCTGAAAAAATGCAACTATGAAATGAAGACCTCATA
TATTTTCATTTATCAATATAATGTTAAAGTTTCATTCCACCGGGTGTGGNGGCTCACAC
TTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCATGAGGTCAGGAGATCGAGA
GTATCCTGGCTAACATGGTGAAACCCCGTCTCTCTAAAAAAATTCNNNAAAANAAAAAA
AAGGAA

Sequence 613

CGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATTGTAGTTTTCTTAGCCATTTTTCT
AATAGTCTACACAGTGTTTATGTTTCCTTTTATTTGTGTATAGTGGAGTAGAGGGGAGGT
TTTTTTATTCAAATAGAAGAAGCTAAACTCAAATGCAATGTCAGATCTCANAATAAACT
GACCCAATTTCTGAAACCCAATAAACACATTTTCAATTTGTAATATTCTTTATTATATAGCT
CTATGAAAAGTAATTTGTGACTTTGATCTTAAAGAGAGTTTTAAAAATACACAGTAAA
TTGAAAGAAAACTACTACATTTAAACAGTATTTTCTGAAAACATAGAATGAAATGC
AAGTATTTTGTGCATGGCAGCTGTTTTTAAGGAACCAATGTTATATATGGNGAATTTTGT
GGAAGACTATGTCTCTTAAATATTTCTTATAAAATANCATGGCTTTTAAATAGCTGGGA
ATCTGANGNNGGATTTCCCATGAAGACCTTAAATGGCTNNGCAGGAATTATAAAAAAG

Sequence 614

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATGCCTGTAATCCCAGC
TGTTGGGGAAGCTGAGATGGGAGGATTGCTTGAGCCTGGGATACTGATATTGAGGCTGCA
GCGGGCCCGAGAATACCACTGCACTCCAGCCTGGATGACAGAGTGAGACACTGGCTCAAAA
AAAAAAGAAAAAGGAAGAAAAAAGTTTAAATCAATGAATGTTCTCATTTCTAATGAAAT
AATGAAACATTATTGGGAGAGTTATAGTCATAATCATCTTACTGCACTATCAATTAATAA
ATACATCATTTTTTAGAGCACAATATATACCATAAAGAATTATTCAAATAGTCTAAATAT
TACGATCAAATTTTTAATAGACTTTGTTACTTAAACTAAACTGTATTAGTCTGTATTAG
TCAGCTCAAGTTGGGATTACACCTGTAATCCCAACACCTAGGGGGGC

Sequence 615

CCGCGGTGGCGGCCGAGGTACACTGTGTAAGTGGTCAAAGATAGACATGGTTTTTTTAC
AAGGAAATTTGCTGAAGTGTAATTATAACACGAAGAGATGGGAGGGAGGGGTAAACACC
TAAATGTCTAACACAGAGAATGGTTCTCTGTTGATACAAAATTATGATACATCAAAAA
GAACAACAATCAAATCTCTGAGAATCCCATACAGTTAAAGGAGCTCCAGCCAGGT
GCGGTGGCTCACGCTGTAATCACAGCACTTTGGGAGGCCGAGTCGGGTGGATCACGAAG

TABLE 1

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TCAAGAGATTGAGACTACCCTGGCCAACACTGTAAAACCCCGTNTCTACTAAAATACAAA
AATTAGCTGGGCCGTGG

Sequence 616

TTAGGGCGAATTGGAGCTCACCGCGGTGGCGGCCGAGGTAATGAATAACTGCCAATGCCA
TCTGCCTGTGGCCTTCTCAAGTTTGTCTGCACCTGTGGTTATCCTGACTTCAAACCCGGG
GAGACAGAGGCTAGAAGAGGCAGACAGCTCTTGTGTATTCTCCTGTCCAGTGCAAAGAAC
ATCTGGAACCTCTGAGCCCTAACCTTAAATGCAAGACCTNATCTGCAGGTGTTCTNATCC
TTTTAGCCCCTCAGTGATGTAAGCAACAAACGTCACCCANCTCCTGGGGCACACTTNACT
CCCAGATGAGCTTGTCTGGATTGTCAGGGAGCCTGGCTCCC

Sequence 617

TAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCCGGGGCGAGGTACATCACCTGCTGA
GGGACATCCAGGACAAGGTCACCACACTCTACAAAGGCAGTCAACTACATGACACATTCC
GCTTCTGCCTGGTCACCAACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGT
TCTCCTCCAATTTGGACCCCAGCCTGGTGGAGCAAGCTTTCTAGATAAGACCCTGAATG
CCTCATTCCATTGGCTGGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGG
AGTCATCAGTTTATCAACCAACAAGCAGCTCCAGCACCCAGCACTTNTACCTGAATTTCA
CCATCACCAACCTACCATATTTCCAGGACAAAGCCCAGCCAGGCACCACCAATTACCAGA
GGAACAAAAGGAATATTGAGGATGCGCTCAACCAACTCTTCCGAAACAGC

Sequence 618

GCCGGGCAGGTACAGATGGGGTTNCACCGTGTTAGCCAGGATGGTCTCGANTTCCTGACC
TCATNANGCATCCANCTCGGCCTCCCAAANTGCTGGAAATTACAAGGGCGTTGAGCCAC
CCGCACCTGGGGCCAGAATCTTACATATTTCTTAAACATCATTAAATATATATTGATTTT
TTACTTTTTTTTTGAATAGGGGTCTTGCTATGTTGCCAGGCTTGGTTTTGAACCTCTGG
CCTTNANGAGATCCTCCCGCTCTCAAACCTCTCAAAGCAATGGGTA

Sequence 619

AGGTACCCCATTTTATGCCATAAGTCAGGTTTCTCCCTCAATAGCCCTTTGGAACTCTCA
AGGTCCAGAGTGGCATCAAACCAACTGACACATGAGTTGATACATCATGTGCTGCCAACA
GAGAAATTAGTCTGTGCCAAACTCAGCACAATCCTGCAGTTCAAACCAGAATTTCAAAA

Sequence 620

ACCAAGATTTGAATCATGCTTTCAAAGCTAATGTGAAGTTAGACATATTTGGTTTCATA
ATCACAGAATTTTAAAAACACCAGGTCTGCAATATTCAGAAATCACCATTAAACGCTCTCT
TGACACATACAATTTCACTTTAGATCGCTGATTTTCTTAACAACTGATTTAGTTAT
TTCTGAATACTGCTAGAAAATTCAAAATCTACAATTAAT

Sequence 621

AGGTACATCACCTGCTGAGGGACATCCAGGACAAGGTCACCACACTCTACAAAGGCAGT
CAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGACGATGGACTCCGTGTTG
GTCAGTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCCAGCCTGGTGGAGCAAGTNTTT
CTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCCACCTACCAGTTGGTGGAC
ATCCATGTGACAGAAATGGAGTCATNAGTTTATCAACCAACAAGCAGCTCCAGCACCCAG
CACTTCTACCTGAATTTACCATCACCAACCTACCATATTTCCAGGACAAAAGCCCAGCC
AGGCACCACCAATTACCAGAGGAACAAAAGGAAT

Sequence 622

NCCGGGCAGGTAATGGATGACAGCAAGTGCACACATCAAGAGAAAGTTACCATTGAGAGG
TGCAGTGAGTTCCCTTGTCACAGNGGAAATCTGGAGACTGGTCAGAGGTAAGATGGGAG
GGCTGTTATTTCCCTAGGTCATCTCTTACATTCTAGTTCTGGTGCTCTCTATCTGTTTA
AGACAAACCCCTTGNGCACCTTTCTCCACCCCTCCCTTTCTCCCTTGCTCCCTTGAGAA
AACAACCTNAGTTCTCTGCCTGCACCATGACTGTCGATACGCGGGGGCAGTTCCGGCGGT
CCGCGGGTCTGTCTCTTGCTTCA

Sequence 623

AGGTACAAGCTGTGCACTGCAAGGTAACCACGTGGCCAGAGGCACATCCCTCCCTCACAT

TABLE 1

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ATACTGAGTGGTGTAAATGCAGTCACCTTGTCATCTGGCAAGAGGTGATCGATGGACACAA
ACTCCTCCCGGAACTGCCCCTCCAGCGAGCTCACTCTGAGGTTATCTGAACTCACATAGC
TTGGGAAACCCAGCTGGGCACGGGCAACATTTGCGTAGTGACCCTTCCAGTCATCGGAGC
ACATGGTCTTCCACGAAGCAGCTGTGAACACCTGGAGCACGGCATTCTGACCACTCACCC
GGACACAGCGGTACCTGCCCGG

Sequence 624

CGGGCAGGTACTTTGCAAGACACGCCTGGCTACGAACAACATGGGACAATGGGCAGCCTC
GCTGCACTGNACAGAGGAAAGGAAAGAGGCCTTGACGCCACTGCCTGGGAAGGAGCAGCA
CATTCTGCATTAACCAAGGCATGCCTCACTCACTGCAATCCCCAAACAAGCCCAACTCTCC
GTGTTGATTATTCTTACCATACTCCACCAGAAAGCAGCATGATTTTCTGTCCTCAAATAC
TTCAGATTCCAAGAGAACTGCACCTTCTAGAGTCTCTACTGATAACCTCAGNCACTTACC
CACTTGAAGCATNAGCACACACTTAAAAAGGAAA

Sequence 625

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATATTCTTCCAACCTTTCT
TCTGTGCATAATCATCTAGGTGTGGTGCTTACATTTTCTTTTGGCAGTGTTATCTTAGTA
TCTTCCAGCATGGTTTTCTCACCTGATACTGTAACCATACTTCCATATCCTCAAATGTGT
TGTTTTCTAAAATAACTTTTTTTTTCTTTTTTAGAGACGGAGTCTCACTTGGCCAGGTG
CGGTGGTTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGTGGATCACGAGGT
CAGGAGTTCGATGAAACCCCGTCTCTACTAAAAATACAAAAATTAGCCAGGTGTGGTGGC
GCACGCCTGTGATCCCAGCTACTCGGGAGGCTGACGCAGGAGAATCTCTTGAAGTTGGGA
GGTGGAGGTGCGAGTGAGCCGTGATCGCGCCGCTGCACTGCAGCCTGGGTGACAGAGTGA
GACTCTGTCTCAAAAAAAAAAAAAA

Sequence 626

AGGTACGCGGGACATACTCCCTAGGTGTCTGTGAGGATGGTGGAGGGGATTTTCTCCATG
CCGGGAGGCTTCCCTGGAGCAGGTGCTGCCTCTCGTGACTCTTGAAAGATGCTTGTGAATA
AAGCATACTGGGAGCTGAGCTGCTGTTTAGTAATTAAAAATCCTTCCATTGTTTAGAGC
TCAGCACCTTTGTGCATTATATTACGCATTCATTTTCGTATCATTGTTGAATTTCTCAC
TTCTGCTACTGCAATGTATGTCTACAGCTGACAAGTCTTCTTGGGAGCCCTACGTAGCT
CTTTTTTTCTTTTCTTTCTTTTTTTTTTGGAGACGGAATCTTGCTCTGTCACCCAGGCT
GGAGTGCAGTGGCGCAATCTCGGCTCACTGTAAGCTCCACCTCCCGGGTTCACGCCATTC
TCCTGCCTCAGCCTCTTGAGTAGCTGGGACTACAGGGTGCCCACCACCACGCCTGGNTAC
TTTTTTTGGTAT

Sequence 627

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACTCTGCCATGAAGGT
TCTGGGGTGGAGAGGGAAGCAATGTATATCCTACCCATGGTGATTGGTCCGATGGAAGTC
ACATCCTGATGGGAAAAAAGGACTGAGCCAGAGTGGACTGTCTAAACCAAATGGGATAA
ACAAGCATGGCATGGAGCCAAAACAAATGGCTAAGTCAGAGGTCCTAATGCAGAAGGCTG
GACAACTAGGATGGTGGGGAAAGACATGAGCTTGAAGGACTTCCCAAGATAAAGCAGAAC
TAACCAGAAGAGCCTGTTATAGATTATATTGGGGGAGTTTGGGGGGTTTGTGCAGGGTG
CATCAAAAAGCACTCGCATGGAATAAACATATCTTGACAGGAACATATGACAGGTAATT
GAATAGTTTGATTTGAAGTATGTAAAGACATGATCCTGATGGTAGAAGGATGGTACCTGC
CCG

Sequence 628

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTT
TTGGGACCGAGTCTCACTCTGTGCGCAGGCTAGAGTGCCATGGCGCAATCTTGGTCACT
GCAACCTCCACCTGCTGGGTCAAGCGATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGA
TTACAGGCCCTNACCACCACGCCCAGCTAATTTTGTATTTAGNAAAGATGGGGTTTAC
TGTGTTGGCCAGGCTGGTCTCGATCTTTTGACCTTGAACTTTNACATAAACTTTACAT
TTCCATGACAAAGTTTTAGCAGTAACTTCCAAATTGGTCTTATTCAACTCCAACATTAAA
CTTTGTATGTACCTGCCCG

Sequence 629

TABLE 1

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CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATGATCC
AGGATGTGATGGGATCTTAGGGCTTGGCTGGAAGGTTTCTCCAGTCAGCCATCTAGCAGA
GCTGCAGATCTGGGCTGGGCTGTTGGCTAAAGTGCTCTTCACAGACACCTCATTGGGCTC
TTCCTTCAGCTTCTTCACTTATTTCTTACTCAGTCACTACTCAGCTCCTTGTCCATGTGT
CCTTGAAGCCATCCTAGGTCTTATTCTGATTCTGAATTCTTCAGTCACCCATAAGCTTCT
CCTTACCCCGGGAGTCAGTGGGTGTGTGTTCCAGGTGGACTTAACCATTTCTTCTCCTTT
ATGATCCTTTCCCTTGGGTGGACAAGTGATTTGGTTGTAAGGCCATTTTTCAAGTTGC
CTATACATTGATAAAAGAAATCCCACTAACGGAAGTAGACTGCATGCCAAATTCAGTGT
CTTCTCCAGGGGCCAAGGTTGGACCCANAAGTGCATGGG

Sequence 630

CCCCGCGGTGGCGGCCGCCCGGGCAGGTACATTATTGCTTCCTGGGAGAGCTGACCATGA
GTCAATTGGCCCAATAANTTATNAAATGAAAACCGGCCATCATCTGCATCTTATGAGT
GCACGTCATCAGAGATGTCCACTCCAGTTACAAGAAAAGTCCTGAGGGCTTTCTTGGAGCC
TGANGGGCGCTGGAGGTGAGACCTGGAGGTGAGCAGGAGTTAACTAGGATGAGGGACNGG
CGCAGCATACAGGAAAAGCTGCCTGGGGGAGAAAAGGACCAACAGCAAAGACTGAGAAAAA
AATGCTGTTGTGACCAGGGTTCAGAGCGGGCATGGAGGACTGAGGGTTCAGAGCGGGCAT
GGAGGACTGAGGGTTCAGAGCGGGCATGGAGGACTGAGGGTTCAGAGCGGGCATGGAGG

Sequence 631

CCGGGCAGGGTACTAAGGACAAAAAGACATTTATTCTCTTTGACCCTTGCTGCCAGNACA
GAAAATGACTTCACCCAAGGACACAGCACTTGCGGGTGGCCTTCTCCACCTCCAGCTATT
GCTTGGTTTCAGGTGACCACTCCCTTTCTCTTCTCAGGCCTATGGGTGGTAACAAGCTCC
CATCCACTGCTAGTCTTAGACATCTTTACTTTCTTGATTGATNCCCTTGACTCTGCCCA
CATCTTTTAAATATCCCATATTAACTTTTTACACCCCTTTGAATGTGTCCTGCTTCCT
GCTGGGACCATGACTAGTCTCTTCTAGTNGGAATCCATATCACCTTCTGTGATGTAGTCT
CCAAGTCAGGCAGNCTCATTTCAACTACAGNCTTTCTTTATGCTTCTCTTTTCCCTTTCT
GGACTCTTACCTTTCTTTTATTTCTTACTCAGCAACAGTGTCTGCCCATTAATAATGCACC
TTTGCGNGGNGGTTNGGTATCTTTATCTCTCTTATTCTTCTTCTTCTTCTTCTTCTTCT
ACTGGCATTGCATGGGAATTTTGGTT

Sequence 632

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGACATACTCCC
TAGGTGTCTGTGAGGATGGTGGAGGGGATTTTCTCCATGCCGGGAGGCTTCTGGAGCAG
GTGCTGCCTCTCGTGA CTCTTGAAAGATGCTTGTGAATAAAGCATACTGGGAGCTGAGCT
GCTGTTTAGTAATTAATAATCCTTTCCATTGTTTAGAGCTCAGCACCTTTGTGCATTCAT
ATTACGCATTCATTTTCGTATCATTGTTGAATTTCTCACTTCTGCTACTGCAATGTATGT
CTACAGCTGACAAGTCTTCTTGGGAGCCCTACGTAGCTCTTTTTTTCTTTTCTTTCTTCTT
TTTTTTTTTGAGACGGAATCTTGCTCTGTACCCAGGCTGGAGTGCAGTGGCGCAATCTC
GGCTCACTGTAAGCTCCACCTCCCGGGTTCACGCCATTCTCCTGCCTCAGCCTCTTGAGT
AGCTGGGACTACAGGTGCCCACCACCACCCCTGGCTACTTTTTT

Sequence 633

GCCGAGGTACTTCCCTGAGCAGTCGAAGTGGATGCCAGACCAATGGCCAGNGCTAATAT
NCAANGCAATGATCCCAATGACGATGATTGGAAAAAATTCATGGCAGCAGTGACAGGA
TCTGTGCAGCAACAGCATCTGCATCTGGTGCAACAGGACTTATTTTCAAATCATCAAGGC
CAAAAAGCGATCGGAATGAGAAGGGGGCTTCAACAGCAGGCGGATCATTTTCCCCCATGG
TGACTATTTCAAGACCTCTGACATCCGGCTCCGCCTCCACCTCTACCTCATAATTCCCGA
GTCCCAAAAATGTAGATGGCACCACGGAAGAGATAGTAGGCCACAGTGTTACTGGCTTCC
CATAAACACAGCCCTTTCTTGCTCACACGGGCATGACCTAATTAAGAACCCCCGCGTAC
CTGCCCGGGCGGC

Sequence 634

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAAAAGTGA
AATCCCTAAGTCAAAGTGTGGCTTATAAGCAGAAATCCTGGTTAGTATTTCAAAGTTCTC
TTAGCGTTTTCTCCTGCGACTTAAAGACTTAAAACGTGAAAAGACATGGACGTAAGAC

TABLE 1

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TCCAAACAAAATACATTTCTTTGAACTAAATAGCTCTTAAGTAAGAAAAATTTCTATA
GATCTTCAAATCATCCCCTAAGCAAAATATTCTCTAATTAAGTATTTCTGTATTTCCATC
TATGTTCTTCCCAGGCTTGGGGCTGTTGATCAGACCTATTTTAGGGGTAAAGTTTCTAGG
GGTCATAGAAGATACAGATTTTGACCTGCTTAATGTCAAGAGGTTGCACGGTTGATTTGT
CCAGTTGTGAATCTATGAATGAAGCTTTTGTCTAAATAAAACGATATCCCCTCTGGC
TGCTGTGAGCACCGGGAGACTTGTTTCGGCAGTGCCTGGGTGCTGGGGCAGGGCCCG

Sequence 635

TGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGGGAGTAAATAAAAGGGTCG
GATTTTGTAGGATTCTAAGGAAGAGGCAGTGTGCTCTGTCCACAGGCTGCAAGGTGAGAA
CCTAAAAGAATGAGATATATCCCATTTTGAATGGCAATCAAAAAGAGGATCTCTGT
CAAGTCTTTACATTAATGCTGAGTAACAATCTCAAAAGCCTGCCATTCCCCTTAGACA
CATGTGGCAAAGCAGAACTGAAGGAATGGCCAAGGGGCTTGAACAAGTAGAGAGACCGA
CAGTCTTTCAAATTTAGGGAACCCAGATACATTTTGGGGGAGCCACTGTTTTCCATT
TTCCTGAAAAGTTCTTGCAAGGTATAAGAAATAGGAATAGAAATTGAATAGGTTCTGGAGC
CAGGGCTACAAAGGCCCCAGCTCTGATCTGTTAGACTGAAAACACACATCAGATGAAAT
TATATNCACAAAAGGAGAGTCCTTAAAAACAGCCATTTCCGTCCCT

Sequence 636

AAGAGCACGTATAGCATGGGGGAAAGAACCTAAATGTCTCTCTGCTCTGTGAGCTGGTGA
AAAACCCAGCATGAGAACGCAGTGTGAGGTGTGGGACTCCTTCTGCCCTGCAGTGGGTG
TTACGGGCGGTGTGCCCTGGCGAGCAAGCTTTGATTCTTGGTTCTTTGAGCTCGTTTCAG
AGGCTGAGTCCCCACATCAGCTTTAGTTCTTGGACTTCCCTGTATTAAGCAAGAATTAGG
AGAATGGCTGTCCCTGCAGGCGCCTCCCGTAAATCCTGAGCTCTCTGGCGCAATCTGAA
CTTCTCTTCTGTTTTCTTTGGCTGTATCAGCCGAACAGGAGAGGCC

Sequence 637

CCGGGCAGGTACCAGGAGAGATCTGAGACANGGTATGAAGTAAAAGATTTAAGATTGGAA
GTGGAGAGTGTGATGGACAGTGCCTTTCGGATGGGTGACTTCTGGAATTCTTGTTAGGC
ACAGCGGAGGTTGGTCTGTGGGAAAGGAAGAATATTTCCGGGGTGAGGAGACTTCGGGG
TGTGGGCCGGGTGCCTTTTTAAATTTGGAATGGTGTATACAATAGGGAAAGGATGTTAAC
TTTGCAGCAGCGGGGATGGTGAATATAACCTGATAGGGACCCCTTCATTTTGTGGAAAG
GGGAGGAGGGGTGTGCTACCCAGACCCAGTCTCCTGGNTGTAAGGGTAAGAAAGTGAATT
GGGAAGAATCCTCAGG

Sequence 638

CCGGGCAGGTACCTGGACTCCTAAGCCTCAGGGATTTACTGAAACACCATTCTATTTTAT
AATAATCCTTAACCAAGAATTTTAAGGATCTTAAATTTTTCTGTGGTTCTATTGTTATCT
GATATATAGATGATCTGCTGCCATATCCTAAAGAGCAGATGAGGCCGGGTGTAGTGGCTC
ACGCCTGTAATCCCAGCACTTTGGGAGGCAGACGAAGGTGGATCACCTAAGGTCAGGAGT
TTGAGACCAGCCTGGCCAACATGGTGAACCCCATCTCTACTAAAAATACAAAAATTAGC
TGGGTGTGGTGGTGGGCACCTGTAATCCAGCTACTAGGAAGGATGAGGCAGGAGAATCA
CTTGAACCCAGGAGGCGGAGGTTGCAGTGAGCTGA

Sequence 639

AGGTACCACTTAACAAGGGTTCTCAGCTGTGNGGNCACTGGACCACTGGGATATGCTGAG
CTATTGCTTAAACACTGACTTAAATAAAACAAATATTTTAAATAATGAGAATGCTACTGT
AATTAGAAGGCAATCATTTCAAAGTCTANATGGAGGCCAGGGGCGGTGGCTCATGCCTGT
AATCCCAGCACTTTGGGAGGCCGAGGTGGGTGGATCACATGAGGTCAGGAGTTTGAGACC
AGCCTGGCCAGTATGGTGAACCTCCATCTCTACTAAAAATACAAAAATTAGCCAGGCGTG
GTGGTGTGCACCTGTAATCCACTGAGGCAGGAGAATCACTTGAACCCGGGAAGTGGAGGT
TACAGTTGAGCTGAGATAGCACCACT

Sequence 640

AGGTACAAAGGTTTCAGTGGTGAGAAGAGGGAGCAAGGCCTTTGGAATTAATGAACTCCAGT
TGTTCTCATAGGTGCAGCAGAAATAGCGAGAGGTGAGGATTATGGAGATTGGTAAGGCG
AGATCATCCAAGGGCCTTTTGCTTGGTAAGCCATTTTACTTTAATCTTGAGTGCCATAGG

TABLE 1

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GATTCATTGACGGATTGATACAGGGAAATGAAATGATTTTTTTTTTTTTTGGTTGGGGGA
GACAAGAGTCTTGCTCTGTTGCCAGGCTGGAGTGCAGTGGCACAACGTCGGTTCACTGC
AGTGTCTGCCTCCCAGGTTCAAGCAATTCTCATGCCTCAGCCTACCTTGTAGCTGGGATT
ACAGGTGCACACCACCACACCCAGCTATTTTTTA

Sequence 641

AGGTACAAAGGTTCAGTGGTGAGAAGAGGGAGCANGGCCCTTGAATAATGAACTCCAGT
TGTTCCCTCATAGGTGCAGCAGAAATAGCGAGAGGTGAGGATTATGGAGATTGGTAAGGCG
AGATCATCCAAGGGCCTTTTGCTTGGTAAGCCATTTTACTTTAATCTTGAGTGCCATAGG
GATTCATTGACGGATTGATACAGGGAAATGAAATGATTTTTTTTTTTTTTGGTTGGGGGA
GACAAGAGTCTTGCTCTGTTGCCAGGCTGGAGTGCAGTGGCACAACGTCGGTTCACTGC
AGTGTCTGCCTCCCAGGTTCAAGCAATTCTCATGCCTCAGCCTACCTTGTAGCTGGGATT
ACAGGTGCACACCACCACACCCAGCTATTTTTTATAT

Sequence 642

AGGTACCTCGTTTCTGAGGATCAANACCTNAGNGACCGNGTGTGTGTGTGTATTTGTG
TGTGTGTGAGTCCTATTTGGGCCCGCCTTTCAGCCCTGTCTTGCAGC

Sequence 643

AGGTACTTTCAATTTCTGTGGGATAAACTCCAGCTCCAGTTTCAGAACCCACTCTAATTG
GTTTAAGCCAGGAAAGGGAGAGGGACATGTTGCTGGGAGGCCCCCATCTGGGGCCTGAGC
TTGGAATCAAATCAGAGGAAGGCAACACATGTAAAGTGCTGAGAGTGAAGGATGAAGAG
AGCTAGGGCTTTGTGCCATCACTCGTGCTCTGGACATAAGTGGAGCTGGGATTCAGCATT
ACCTGCCCCGTGACCTGCCC

Sequence 644

CGGGCAGGTACTAGTCCAGGTGTGAGATGAAGGGGGCCTGGATGAAGCAGAGGGTGAGAG
ACAAGGAAGATTCTGAGGACCTTGTGGCTAGATGTGGGGGTTAAGTCAGGTTCAACTCCT
AGGCTGGATGAATTGGCAGATGGCACATGAAGTACAAGAGAATGGAAGGCAGAACCTATT
TTGTGGGCAAAAAATAAATTACATTTGCAATACTGAATTGAGGGGCTTCTTGGAAGTCC
AGGTGTAGATGTCTTACAAAAATAGAATATTCTGGGCTGGGTGCAGTGGCTCACCCCTGT
AATCCAGCACTTTGGGAGGCCAAGGTAGGGGGATCACCTGAGGTGAGGATTCAGAGACC
AGCCTG

Sequence 645

GGNCACCACACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCAC
CAACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGA
CCCCAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCT
GGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCA
ACCAACAAGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACC
ATATTCCCAGGACAAAGCCCAGCCAGGCACC

Sequence 646

CCGGGCAGGTACAGGGGCTTGGGGGCTTGCCAGGCTCTTCTCCATCCATGCCACGGGGC
TGACAGCCACAGATCTGGAAGCTCAGGCCTAGGAGTGCAGGCTCCGTTAAGCCCTGTGT
CAACATCCTGACTCCTAGGGGTGCCAAGATTTGAGTGGCCACTTTCACCTCTGGAGGAA
GTAATACCTAAGGCGCTGATAGAAATAGAATTCCGCTGCCAGGCAAGGTGGCTCACACC
TGTAATCCTAGCACTTTGGGCAGCCTCAACGCAGGTGGATCACTTGAGGTGAGGATTCG
AGACTAGCCTGGCCCAACATGGTGAAACCCTGTCTCTACTAAAAATACAAAAATTA

Sequence 647

AGGTACNTGTTTCAGTCACTGGGCTGANNTGGNNCACAGCACAACTTCATAGCCACTGT
ATGAAGAAGTANAAGACCCAGACTCTTGCTTTATGTTGGTATCAAAAGTCATTTAGAGT
CAGGCTGATCACTCCCAAGTAACCCACTGACTTCTTTACTCCAGCTCTCTGTCTGCTGNT
GACTCANAANGTNACACTTNATTTTCTCCATTGCTGATATAATCATATCTGCAACATAAA
AGTGGGCATTTTCTTTTCTACATCAACAGGCAGCACAAATACCTCTGGTGAGAAGGAAT
TCNAAGAAATGGTTNTTCTACTGACTTGAACAGCACCTTCATCAGCAGCAGATGTCAGAT
GGGAAGGC

TABLE 1
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Sequence 648

CCGGGCAGGTACCACTAGATTGCCTCCCTGTGCCTGGGCAATTCAGAAAATGGTGGTTT
TCCTTTTCGTTTCCATCTTTTTTAAGACTTAAAAAGTATCTGCTCTCATTTTCTCCTAGCG
GCCTCCATGCCTTGACTCAAAAAATGCTGTCTTAGTTGACAGCCTTGAAATGAGTATGAC
CCTAGCTCTAGTTGGGTGGAAATCACCTCGCATAGAAATAGACCTGGAGGGCCGGGCACG
GTGGCTCACTCCTATAATCCCAGCACTTTGGGAGGCCAGGTGGGTGGATCCCGAGGTCA
GGAGTTCAAGACCAGCCTGGCCAACATGGTGAAACCCCGTCTCTACTAAAAAAAAAAAAA
AAA

Sequence 649

AGGTACTAGTATGAAGGAAATAATATCCACACACTGATACTGGTCCAGCNGAAACCAAGA
CCGCTCCTGGTGCATTAACCTTTTAACAGAGCANGGACTCANTTCTCTGAAAATAGTGCCA
TAAACATGTGCTCCCAGAAGAATAAATATTTGGCTTGCTAGAATTTCTGCNGCTTTTNT
GTAAAGTTGATTATTCGGTATTAAGAGGAGTATCAAATATGNGTNNATGNANNAAAAA
CTTGGAANAGTANNGGACCNNGGCTTATCTCNTCATTTTCATTCTGCACACTNCAANTC
ANTCNTTTCCCATCTTNNTTCCCNCTCTCTGNAATTTATCACCTCCCCCTCT

Sequence 650

GGCGATGGACTCCACCGCGGTGGCGGCCGAGGTACTTACCACAGAGAAAAGCCAATAATC
ACAATATATGTTGTCTTACTGACCCATAACCCATTTTCTGAGGGTGGCAGGCATTGTGCC
CCCACTGTGAGGTGGGACTATATACATATACAAAGGAGGTGTTTAACTGGGTGGCATGTC
TCAGGGAGATGTAANGACTTACCTGCATATCCTGGCAGTNTTGAAATGATAGTGAAGTGT
TCNTANGGCNTCCNCTTGATGGCATAGNCNAAACACCAGNATTTTCTTGGNAGAATGATT
CGGNAAATGCTACATAGAAGAAATGGNTGGTGAGCTNTTACTGTGACTGTGCCCATAGTA
AGTCATCCTGGACCCTCTGAATCTTATCCCAC

Sequence 651

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTGTTTTTTTTTTTTTTTTTTTT
TTTTATGATATTCATCTATGAACCAATTTAATTTTAAATTAATAAATGACTTCTGATCTG
GCAGATGATTTGGGTCTAGAAAGAAATTTGTCCAGGCATGGNNGCTCATGCCTGTAATC
CCAGCACTTTGGGAGGCTGAGGNGGGAGAAACCTGTNAGCTCAGGAATTGGAGACCAACC
CTGGNAACGTAACAAGACTTNTTTTTTACAATATTAATAATAAAAAAGGCCAGGTGCCG
GNGGTTACACCTGTATCCCAGCACTTTGGGAGGCCACCAGACAGGTGGATCATNAGGT
CAGGAGTTCGAGACCAGCCTGGCCAACGTGGGGAAACCCCTGCCTNTACTAAAAACACAAA
AATTATCTTTGCTTTGNTGGCGGGAGGCTNTAATCCAGCTTCTAGGGAGGTTGAGGCAGG
AAAATCNCTTGAATCTTGAAAGCAAAANTTNCAATNAGCCCNNGTCCACCATTTGCCCTT
CCAANCTGGGCAACAAGAGCCAAATTTNTTNAAAAAAAAAAAAAAGGGCCGGCCTTGG
GGGTNNTCCCNNGGAACCCACNCNTNTGAGGCCCCACCGGTGGTNNTAGGGNCNGAGTT
CAAAACNNCCTTCCACTTTTNGAACCCGTTTTTTAAATTCAAAAATTNCTGGCTGGATA
AATCCGNAGCCCCTTCTTGNGGGTGNGGNNGGANTNTTCCCNCAANNGGGGTGGGTNA
NNNCCGAAANCCCTTATTTCCCTNTGNAAAGGGNCTTTTCNAAAAAAAAAAAAANA

Sequence 652

CCCGCGGTGGCGGCCCGCCCGGGCAGGTACAGGTAAGGCAGAAGGAAGGAAGGGCAAAGA
AACAATTCAGGGCCCTGGTTTCTGGGATGACAGGCTTCCCAACACTCATGCCAGGACTA
TTTTCCACCTCGGTTCACTATGGGTTTTTTTCTTTTTTTTAAATATAATGAATTTTAA
AATGTGTGTTTGTGCCCAGATTATCCANAAAGAGTTGAAGGGAGGAAAGGNGTGCNTG
GGGTGCNTGGGANTTTTANCCCTCTNTCCACCCNGATTTCTAAGTTGGGGGGGGCATCCA
AACAGCTTCACCCANGTGCCCAGGCTNTTTTTTNTNTCCAAAGCCAACCTTCCAGGGC
ANGGANGGGTGAAGNTTAGGAGGGCAAAGGTTAGCCTGGAGGCTGCAATTAACAAGAATC
AAANTGGGGTTTAAAGATTCTCACACCCAGTTTGCTAATTTAGCTGGTCTTGTAGAGG
TGACACCTAGTAGGACAACATGGNTTTTNGGGCAGGGCTGGGGTGTGCTGCTCTGCTTTC
TAGGGTAGAAAGGAATCATACATTGAAAATGCTTAAATCGATGGAATGATTTATGTTCT
NATCTTTCATCTTTTTCTGNGTGGCTGGTTTTCTGCCANCCTTACTTGGACAAGCAACCAT
TCTANACCTTTTCTNAGGCATNTCCNAGAANGNGAAGTNGAAAGGAAGAAAAAACTT

TABLE 1

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ATTTTTTNNGNCCAAAAATTNNGGCAAAAAAAAAA

Sequence 653

TCCACCGCGGTGGCGGCCCGAGGTACGCGGGGGCCCTTCTATCTCAGGATGTTTGCACCT
GCTATTTCCTTTTCTTAAAGGCTCATCCCTAGATATTTGCATGACTGGCTTCCTAATTTN
NTGTAAGCTTTTGCTGAGAAGTTACTTTACCAACTGTCATTGAGGTTTTCCCTGAACATC
TTAGGTAAGATAACAAGCTCCCCTCCTTTCTTTCCCTCACTTCTTGGTATTCCTTATCTC
GTAACTTTTTTTTTNGGGGGGATNGANACTTNCGTNTTGNTTTTGTTGGCCAAGCTTGGA
GTGCANNGGGTGCANTCTTGGCTTNACTGAAACCTCCACCTCCCGGGTTTAAAGCGATTCT
TTCTGCCTTNAGCCTNCCGAGTAGCTGGGACTACGGGCAAGTGCCACCACACCCAGCTAA
TTTTTTGTATTTTAAAGTAGAGGTGGGGTTCCTGTGTTAGGATGGTCTCTATCTCCTGA
CCTTTTGGGCCACCCACCTCGGCCTCCAAAGTGCTGGGATTATAGGTGTGAGCCAGTGCTN
CCCGGCCTCTCATAATTTTCTTAAATT

Sequence 654

CNAATTGGAGCTCCCCGCGGTGGCGGTGAGTTNGTCTTAGAGATACCCATGAGGTCACCT
ACTCAAAATGGGGCTCAGAGTAGCCTTGTCCATTCTTGTCCAGTGGGCGCAGCTACAGT
CTNNGTGGNNNGGAGTGACTGGAGGCTGTCCCACTCCCACTTCAGTGAGGCATTCATG
TGCACCCAGCACACTTTCTAGCTTTATTTGCCTGGAGGGGAAGATTCTCCAGAACCTTGT
TAAGATGCACAGNNGGGGCCCTTGGACTGGCAAGTGTTGGCCTTNGGCAGTCCCTNGGAGC
TTGTTAGGAATGCAAAATNTTAAGCTTCTTCTACTGNATCTAAAGGTTGANTTTAAACA
AGATCCAGCTTGTTTCGTTTCACATGAAAGTTGAGGCACACTGCTCTAGAAAGTTCTTTT
ATCTTTACTGGCCACCAAAGTAATCAAACCTTGNAAAGTACCCTCGGNCCGCTCTAGAA
CTAGTG

Sequence 655

GCTCCCCGCGGTGGCGGCCCGCGGGCAGGTACGCGGGATATGAAGTGAGGTTAAGTCAGA
TGGAATGGCAGTGGACTACTGTTTTGGTTAATAAATCGAGATACCCTTAAGAGTTGTGN
NCTGAACATACTGTCTTTCTTTCCCACTTCATGTACAGCACCTGCCTAATAATAGGT
GCTCGAAAAACATCTGTTGAATGAAATGAATTCTTTGTTTGCAGTAGGGCAAAGAAGGG
TAGAGAGGAACNACTTTGCCAAGCTGATNTGTAAATGTTGCAAAAGGGTTTNGGCCAGAA
AATTCNANAACCCATTNGAGAGGCAATACATGTTAAGGGACCTNTAAGATGTTTCACAA
CCTTGGAAATAATTAAGAACTTTCTACTGNTTACTTATTTCCCACTCCTGGCTGCC
CCTCTTGGGTGGACTGCCTNCTGTTGGAGGGAATACTGNGTGAGACACATCTTTTAGTAA
AACAGAAATGTGAACCACTTGCAGAAATCACAAGCACACTGTTACCAAATAGGTCTTG
ACTGCTCCCTTNGCTGGGGGACAAATGTTTTGATAATGTCTGTGAGTAGATTGAGTTCCC
TATTTCTTTTTAAGACTTGATATTTAAGAATACTGGTTCTTTTTTGGCCAGCATCGCAAN
GAAGTTTTTCTTTAACTTTTGGGCCAAAAAAAAAAAAAAAAA

Sequence 656

CGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACAGGATGTTTTCTAAATTTTAAGT
CAAATCTTCTTGACACATACCTATTTTTATTTGTTTTGGTTCTCATCTCTGTGAACA
GAGCAAAGCATGCAACCATTGTAACACTTTCAATTTGTTTTATAAACTCAAGTTCTAGAG
TTGGATTTCTGATTTGCATAACTCGGCATAGTGTAAGTGCTTGTAGTTTTAAACAGAAA
AAGAGGGAAGAAATGACNATCCANAAAAAAGATCAAATCTTATGACTGTAATTTATTA
AGGNATCCAATGGAATCTTTCCCTTTTCTTTCTTTTTTTTTTTTTTAAAGAGACAAGC
TCAAGTTCCATAAGCTGGGAATGCAGTATCATGATCCATAGTTCACAGCAGCCTTCAACT
CCCTGGGGTTCAAGGNGATCCTAAGAACTTGNNGGCCTCAAGCAGTCCTCCTGCCTCAGC
CTGCCAAAGTGCTGGGGATTACAAAGCATGAGCCACTGCTCCTAATTCTTAAGAGATA

Sequence 657

GAATTGGAGCTCCCCGCGGTGGCGGCCCGGGCGCGGTGGCTCATGCCTGTGGTCCCAGAAC
TTTGGGAAGCCGAGGCGGGCGGATCACGAGGTGAGGAGATCAGGACCATCCTGGCTAACA
CGGTGAAGCCCCGTCTCTACTGAAAATGGAAAAAATTGGCCGGACCGTGGTGGCGGGCGC
CTGTGGTCCCAGGTGGCTGGATACACGGGTGTGCACCACCATACTGGCTGATTCTTGTAT
TTTTGGTAGAGATGGGGNTTGGCCNNGTGGTCCAGCTGATCTTGAACCTCCTGCACCTG

TABLE 1
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CCTNNGCCTTCCAAAGTGTTGGGATTACCGGTGTGAGACACTGGCCCCTGGCTATATTTT
ACTATTTGGAAATCACAATGCATCTTAAATTGATGGCTTCTTGCAACCACTTTCAACCA
GGTGCCTGTCATGATTTAAGTGCTAGCATCAAGGCAGGTAGTTATGAAGAAATAGAGTG
TGTGTTTATATACTCACACAGTTAGAAATCGACCCTTTTAAAAATTATTTCTTTTGAAA
A

Sequence 658

AGCTCCCCGCGGTGGCGGCCCGCCCGGGCNGGTACCGCGGGATATGAAGTGAGGTTAAGT
CAGATGGAATGGCAGTGGACTACTGTTTTTGGTTAATAAATCGAGATACCCTTAAGAGTT
GTGTTCTGAACATACTGTCTTTCTTTCCCGAGTTCCATGTCACAGCACCTGCCTAATAAT
AGGTGCTCGAAAAACATCTGTTGAATGAAATGAATTCTTTTGTTCAGTAGGGCAAAGA
AGGGTAGAGAGAAANCAACCTNGCACAAGCTGNTTGTNAATGTTGCAAAAGGTTTAGGC
CAAGAAAANTTCNAAAACCCATTNGAAAAGCATACATGTTTAGTGGAACCTTGAAAATGT
TTTCACAACCTTGGAATAATTTAAAAGTAACTTCTACTGGTTTTACTTATTTCCCACT
CCTGGCTGCCCTCTTGGGGTGGGACTGCCTCCTGTTGGGAGGGGAATACTGTGTGAGGA
CACATCTTTTAGTAAACAGAAATGTGAAACCNACTTTCAGAAATCACAAGCACACTGT
TNCCAATTAGCTTGACTGGCTTCTTNTCTGGGGGGACAAATGTTNGATAATGTCTGTCA
GTAGATTGAGTTCCCTATTTCTTTTAAAGACTGATATTTAANAATACTGTTTCTTTTTT
GCCACCTCGCANTGGAAGTTTTNTTACTTTTGGCCAAAAAAAAAAAA

Sequence 659

CCGCGGTGGCGGCCGAGGTACTGGTAAAGGGATAGTCACATAGATCAATGAAAAAGAACA
GAGAATCTGTGAACAGACCATGCAAATATGCCTGCCTGGTTTTTCAACACAGTGCAAAAG
CAACTCAGCCAACAAAAGACAGCTTTTGGCCAGGCCGAGTGGCTCACTCCTGTAATCCC
AGCACTTTGGGAGGCCCGAGGCGGGTGGATCAACGAGGTCAGGAGATCAAAGACCATCCT
GGCTAATATGATAAAACCCCGTCTCTACTAAAAAACACACACCCCAAATTGCCCGGTG
TGGTGGCAGGTGCCTTTNGTCCCACTNCTTTGGGANGGTTAAGCAAGGGANAATGGCNT
TGAACCCGGAANGGAAANCTTTGCCNTGGGGCCCANATTTNNNCCNTTNNNCTTCANCT
TTGGGTGNANAAAAANCNGGACTTGGTTTCAAAAAAAAAAAAAA

Sequence 660

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTTGAAGGTGAGCTTTGAA
GATGCAACATGAATTTGACAGTANAGATGTAGGGAGGAAGGAAGGCAGGACAGGTGAGAC
AGAAGTGCAGGAACAGCCCAGGCCTTTGCAGCCTTCCACACCCCTACAAGACCTGCC

Sequence 661

ACTTAGGGCGAATTGGAGCTCNCGCGGTGGCGGCCGCGCCGGGCANGGTACGCGGGGACT
TGACTTAACTCTGGGGCCCGGGAGGCCGCGGTTTTCTCCCCGCTTGCCGGGGTGGTCC
TCTTCCCTTTGTCGGACCAAAGAAGTAAACACTGTGTGGAGAGGGACTGACGTGTTTGA
GGGAAATGGGAATGTACCT

Sequence 662

AGGTACTCCAAGCTCTGAGACCACCTCTTCTGCAAAGCCTTCTGATTCTGCAAAGAACA
GGTAGGCATTTTCATCCTTGGGACCTCACAGCAATTCAGGACACATTTGTGTCCCAGCCCT
GCTTGGCTTGGCTGTCTCCATGAATATACACTTTGTAACCTCTGCACCAGGCATCATACC
AAGCACACAGTAGGCACTCCTGTGTTTTTGAATAAGTGACTATATCATCACCACATTTT
AAATGCCGAATATATGAGCTACTAGAAAAGACATAAGGGTAGATTTTACATCTTTATTGT
ATCCTAGATATACAAGTCTATTACTGCCTTTTCCCATGTTCTGTCAACATAGCATAAAGA
ATGTGGATTTACCTGTTAGAAATTGAATAAGCGGCCGCTCTAGAACTAGTG

Sequence 663

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGTTACACGGCAATTT
TNTTAATAACTCCCTTTACTATGTGAGACAAGCTATGTCAAGCGTCTTCTGTATCCTNTA
CGGGGAAAAAAAAAAGTTAACCAGAGCCAAATGCTTGCTTTCAAAGATAACTTGCCATC
CTGAAAATATAATTTTTACAATTCATAACACCTTTTGAAAAATAAATAATNTGGCAA
AAATGCCCATGCATTAACAAACCATTTTTTCAAGTTAATCTCTTTATATGTTCAACTTTG
ATGTATTTTAAATAAACAAAGCAAATTCAACTAAAATACAATCTGGATTCCATAGCCA

TABLE 1
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ANGGTTTTATTACAATTCCTANTAGGAAGGCTTTATTTTAGCTNTCAAATGGGGNNGG
ACCTATAAGGGAAATTTAAACCGTTTNCNTTGAGTTTTNTNTTNAAGGGGAANGGGGG
AGGANTTCCCAAATGGGGAAAGGGGAAAAAAGGGGNAANNCCNTTTGGCCTTTTN
GGNANTTTTAAAAAAAANTTTNCCCCCGNGNCCCCCAAAAAAANNAANNTTTT
TTNAAAAAAAAAAAA

Sequence 664

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGCAGGTAAGTCTGCTGGTTTTCTGGT
GTTCTTACAAGCTGCCTAGGTCTCTTTTGTCTCAGCAGTTCAGGCGATGCAAAAGTTG
CCAGTTCTGTGAGCATTCCAAGTCAGGTAAGACAGAAAGCCATCTCTTAGGCAGTCCCCA
GAAAAGCTGAAAGGTTGGATATACTTTCTACTCTTCTCTTTTCTTCATGAGAGAAAGGCC
ATGTGGGCATTTTCTCCCAATAACACTGAGTTCTGTTGTCTTCTGTGCGCTGTGCTGCAG
GTTCTCAGGTGCTGCAGTTAGCTGCT

Sequence 665

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGTAAGATTTCTGAAGGGATCCATAGCC
AAAACATGTTTGAAGGCCACTGGGCTCGCTAACTTCTAAAAGCACCCAGTTCTAGCAGA
CATCCTAAGGAACATTCCAGGAAAATTCCAGCCTAGAACCTCCTGGGGTCTGACAACT
TAGAGAACAGTGCTGGCTTTGAATGGGCTTGGGGCAGCCTCGAAACCCTCTTCCAGTC
TCCATGCAGGCAGGGGAGCTCCTTAAGCAACACATAGGACATTTCTGGGAGAAATGGGAT
CCCCAACACAATGAACACTATAGATTTAATGGTCTATATGGTTAAATACACAAGGCCCC
TCATTTCCAACCCCGCCTGTTTCATCTGATTCTGTACCTCGGC

Sequence 666

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGTCTCAGACATTCCCCCAGTGGCT
GAAGTGGCATATGAATTATGAAGTTGGATCATTGGGAATGAATGTAAGAGAATTGCCAAG
GGCTCCTCCTACTCCAGAGAGGAAACCTCATCCAGGGCCATGAAGCCACTTCCTCACCAT
CTGTGTGCTGCTTAAGCTAATGCTGCGGGAACCATGGTTCCTTGGGAGGAATCAAGCTGA
CTCTTGGCATGAGATTCTGCTTCCTAGGGTTGAGAGCGGCACTGCCATGGCTTCTCTG
GACGACCCAGGGGAAGTGAGGGAGGGCTTCTCTGCCCTCTGTGCTGAAGGATCTGCAG
TCTTTCTATCAGCTTCACTCACATTACGAGGAAGAACAACACTCAGGGGAAGGACCGTGATGT
CAAAGGGCAAATTAAGTAAGAGGCGAGGACCTTGCCTACCCCTGCTTGTGCTTGAGA
GCTTTAACTCACNGGATAGTTCTTATCATTGTTGGTGGTGACAGGNATATGATAATTA
GTAGTAGCCAACAGATGACTAGTNGTTGTCTGTGCCAAGCGTTTTAAAGTTNCCTGTT
ATTAATTTCAATTA

Sequence 667

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGCAGGTACGCGGGGGAAGAG
AAAGCGTGAGGGCTGGGCCTGCGGCGGGCTTTAGGGAGTGGTCCCTGGCTGTGGATAGAT
CTGCTGATGAGTCCAGGCCCGGTCCATTCTCCTCGCGCTGCAAGGATGCTCCTGGGATT
TCGGAGAGGCCGAGGAGTCATTTCAAACACATCATCCATGGCCTTTTACCTGCAGCCAG
CGTTGCTCCGAAGGCAGCTGTGCCACGCACACCTCCTCCCGCAGCCCCAACCCATCTCC
AGAGAGACCAAGATCTGCTCTGGCAGCAGCCATTCTGGCGACAACATTGAC

Sequence 668

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGTCTGATAGGAGAGGGAGGAGGG
CTGGCAGCTGAGTAGCCAGAATCAGGCAGACGGTGGTAGCAGAAGTCAGAGGCCGAGGGGA
ATCAGGGAAAGGAGTTCAACCATGGAGGACCTTGCTGGCCAGGTTAGAGACTGTGGACTT
TTGTCTGGGTGAGACAGGAAGTCACTGGAGGGCTGTGACAGAGCTCTGAGGCTGTGAGGC
ACTGCTCTGTGAGTCCATGAGTGGGGAAAACAGGAGCTTGCTGCACTGGTAGAGACCAC
AGATAATGATGACTTGGACAGAGCAGCTGGGAGAGAACTAGTTCAATAACCCTAACACGC
CTCTCCATTCTGCATTTTCCCTAAAAATGTACCTGCCCG

Sequence 669

CCGCGGTGGCGGCCGAGGTACCTGCCCTATCTTGCTGAATGTTTTATAATCTAATAAAAC
TCAGATAAAGACCCAGATGTCACACCTGAACAGGAAAAGCTGAAAGGAAAAGATAATTA
AATATAAATCAACAGAATCAAGATTTTGAAGGACCTAGAAAACCTGAAGGATTACTGAA

TABLE 1
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GCCAAGCAAGAGGAAATGATAGGATTAAGTAAATCTTGTGTTTAGATTTTTTTTTT
TTTTCAAACGGAGTCTCGCTCTGTCACCAGGCTGGAGTGCAATGGCGCAATCTTGGCTC
ACTGCAATCTCCATCTCCGGGCTCAAGCAATCCTCCCACCTCAGCCTCCCTAGTAGCTGG
GACCACAGGCATGCGCCACACGCCTGGATAATTTAAATATATACATATTTTGTAGAGA
CAGGGTGCTGCTTTATTGCCAGGCTAGTCTCAAACCTCCTGGCTTCAAGGCATCCTCCTG
CCCCAGCTTTCCAAAGTGCTGGGATTACTGGTGTGAGCCACTGTGCCGGGACATAAATAG
TTATGCTGTATTGGTTAAGGAATAATGACA

Sequence 670

CCGCGGTGGCGGCCGCCGGGCGAGGTACGCGGGGAGGTCATGCCCGTGTGAGCCAGGAAA
GGGCTGTGTTTATGGGAAGCCAGTAACACTGTGGCCTACTATCTCTTCCGTGGTGCCATC
TACATTTTTGGGACTCGGGAATTATGAGGTAGAGGTGGAGGCGGAGCCGGATGTCAGAGG
TCCTGAAATAGTCACCATGGGGGAAAATGATCCGCCTGCTGTTGAAGCCCCCTTCTCATT
CCGATCGCTTTTTGGCCTTGATGATTTGAAAATAAGTCCTGTTGCACCAGATGCAGATGC
TGTTGCTGCACAGATCCTGTCACTGCTGCCATTGAAGTTTTTCCAATCATCGTCAT

Sequence 671

CCGCGGTGGCGGCCGAGGTACAAGGAAGGCCTTAAAGACTGCCCCACTCTCCTTGTTTTCC
CATCCCCTGTCCCTTCTACTTCTCACATTCACTATGTGCCCTAGGACAAAATCAAAT
GTGGAACATTTGGTCATGTCTACTTTGTCCAAGGGTGGGAGTTCTTGAGGAATTCAAGT
GGGAAGTAGAACAACCTTTCTACCCTTTCCTTCCCTTCCTCCCCACCTCTACCTAGA
AGCCCATCAATCACTTTGAACCTTCTTGAGAAAAAAGGAAACAAAAGAAAAAGAAAGGA
GAGGCTGGGTGCGGTGGCTCATGCCTATAATCCCAGCACATTGGGAGGCCAAGGTGGGTG
GATCACTTGAGGTGAGGAGTCGAGACCAGCCTGGCCAAAATGGTGAAAACATGTCTCTAC
TAAAAATACAAAATTCGCTGGGTGTGGTGGTGGGTG

Sequence 672

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGACACTGGTGGGG
GAGAGTCCGACGCGCCTGGCTAGGAGCGCCGACCGCAGGGCCTCTACGGACCTTACTAGA
AAAATGAAACCTGATGAAACTCCTATGTTTGACCCAAGTCTACTCAAAGAAGTGGACTGG
AGTCAGAATACAGCTACATTTTCTCCAGCCATTTCCCAACACATCCTGGAGAAGGCTTG
GTTTTGAGGCTTCATGCCAGAAAGGGGAATGGGGAATGGCTGCTTAACGGCATGTNTTTT
TT

Sequence 673

CGCGGTGGCGGCCGCCGGGCGAGGTACACGATGAAACGGGGGTAAAGGAAGGAGAAGAAAA
ACATTGAAAGGCATTTGACAGGGTAAGGTTGTATTCCCAGACAACCCTGTCAAGCAGCT
CTGAAGGGATGATGAGCCTGGACTCTCTGGACTCCTAGATTATGAACTCCTGCAGTGGAC
CATGTCCTATTTTTTGGAGGCGTTGGGGGGAATTGTCTTACGCAGCACCCAAGCACACTG
CTATGCAATGGACCACAGATAGGAAGCAAGCACTGCATTTGGCTCCCCCGCGTACCT

Sequence 674

CCGCGGTGGCGGCCGAGGTACTAAATCATTAAATTCATCCTGAGCTAGTGGCTTTATTAAT
GAGTATCTCACAAATACCACAAAAATTCAACCTGGCCATGTGGAGCAATATAAAATTATG
GCATTTCTTGGTATGTTTTTCTTTGGCGAGGAGACAACTTGATCTTGTGTTTCCAGAA
GCATGTTAATTTGCCCTGCTTGAGAATCTCTCTGGCTTGAAAGGAGATTATATTCATGG
CAGTCTGTGAATTTTCATTTTATTTCATTTTATTTGAAGACAAGAGTCTCACTCCAG
CCTGGGTGACAAGAGCAAGACTCCCGTCTCAAAT

Sequence 675

ATANGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGGAGGTACCATGAGGGGAGA
ACCGGCAAGGGGTGCCATTCTAGCATCTGGGTGGGAGAGAGGAGGCTGAATGCCAGGGGA
AACTTCTTGAAAAAGTGATGCTGAGTTAGGACAATTTAGTCAATGAGAAGGGATCTGGC
TGTTCTTGGCAGTGGAGACAACATNTTTAAAGGCATGGGAGAATATCTAAAATTTACCTT

Sequence 676

AGATAATAACATCTGATATCCACATGGGGTCTGGAGGNGCAAGCCACCTTCCTTTCATCC

TABLE 1

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CACGGTCTCACAGCAGCCCTGGAAAGAGGCTGCTCTCTGTTGGAGGCTAAGGGCCAGTGT
TGGAAGGAGCTCGGGTGGAAAGTGTGGTCTGCATGAGGGGCTCCCGTGAATAGAGGAGAG
GGGTGGCNGGTACCTGCCCCG

Sequence 677

TACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCANGGTACCTGCCTC
TGCCAGATACCCCTGAGGGAAGAGGATGTTCTATAACCAGGCCGACAGGTTAGCATTGT
GAACACAGTTCTGACGTTGTTGGGAGGGTTGTTGCCAGAAACATCCCCATGCGCTACT
CTTTCAACCAGAGGTCAAGAAGTCCTTTACTTTTGTGTCTTTTTTGTGTTGTTGTTGAG
ACGGAGTTTCACTCTTGTTGCCAGGCTGGAGTGCAATGGCGCAATCTCGGCTTACCACA
ACCTCTGCCTCCCAGGTTCAAGCAATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGATCA
CAGGTGCCCCACCACACGCCTGCTAATTTTCATACCCGCGTACCTCGGCC

Sequence 678

AGGCGCAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTAATCTGTGGTATTTCA
CATAATATTAACCAGCTGTTAGCAATGACTGATATATACTTCCATTGAAAATGATGTAA
GGTCTGAAAGGATTCATTTTGACAATTTTATATCACATATTTATATTTACCTTAGGTGGT
TCTTTTAAATGTTTTAATTTGGGACCACACTAATTTCTAAGTTGGTAATCATCTCTTAC
CAAAATTAATAACCAAGCCAAGAAAAATGGTTTCATGAATAGAATCTACTAGTCTTTTATA
TCTTATAATGGTAGATCACTGATGAGGTAGAACTCCATAAGAGCTTCNCTCTCACAGTNA
AAGGTTTTGGTTGTGCATGGATTACACCTGGTGAAAGTTGGTTAGTATTTGTCTAAGTGG
CTTAAGACAAATTTATTTTGATTTGTATTGTGAATGACTTTGCGAANCACCCAGAATTT
TNCCGCTTCGTGTGTNGTGTGTGTGTGTGT

Sequence 679

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCCACATAATAGCTC
AGTGCATGCAATTTACAAAGTAATAAGTGAAATGCTCCCATAGTTGACTATAACATTTT
CTCATTTTTCTCTGAATTTGCTTTTTAAAAAAGTCTTCCCTTGCCATTCCCTTCCCAT
TCCAGATTGTAAGTCTTCTTTCCAGCTGCATCAGAAGAAGGGGACTTTCCATGTAGGTG
TTATTCTCAGAAAAGGCCAGAAAAGACCAGGTCATGGTGGGGATGATTTGCTCCAAGCAT
AAAAGAGAATTGTGATGGTTCCAGGAAGACTGGAAAATAACGAGACTGGAAAGAAATGAGA
AGGGCTTCAGAGGAATGGCACATTGAAATAAAGGGAAGTGGTAAGAACAGGAACCCAAAG
NGGAATGAANGGGCNCACAGTGGCAGGGATGATTGGATAGACTGTGGAATAAAAAATAATT
TG

Sequence 680

AGGTACAAACTGGCTTCTTCTCTTTGTACCAGCACCTGCTTCATAGTCTCTCTGGAGTG
CCAGGAACGGGTCAATTTAGATTAAATCTCCCATACCGTTCCTGGATAAATACCTCCTTCC
TGCGAGCCCGCAGGGCCTCGATGACAAGGTCTCTGGCCTCCAGCTCCCTTCCATCACGC
TGAGGAGCATCCGCAGCTCGGATTTACTGAGAGTATCCACATCAAATCTTTTTTCAGTT
TTACAAGTGGAATTAAGCAGTCCTCCTCCCCGTTTCTCCTTCCATTGCCAGGCTCAGCT
CCTCTACCCCAAGTACCTGCCCCG

Sequence 681

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGGTGGAAAGTGAGGTGGTTT
TATTTCTAGTTACCATTTGCTTAGGCTGTATAGACCTCTGGAATCCCAGCTTATGTGG
AGAAGGTATCCTGTTAGACTTCCCTCCTTTGGTCAGCACTGGGCCTTAATTTCTGGCCCC
TCAAAGCTGCTAAAACTGAAGGCCAGGCTTGCCTGGCTTGGCAAAGGACGTCGGGCAGAA
GCAGCTTCTCCTCTCCTCTGTTTCTGTTTCCCCTACCATAGGCTTTGGCCTGGGAG
TTTTCTACA

Sequence 682

CCGCCCCGGGCAGGTACCTTCTTGGTTGCTGTGACTGTCTGCTAGCACTAAGACTGTCTTA
AGCAGATAGAGGGCAATGGTCTTTGAAGGCAAATGACAAAGCGTGGCCCTGAGCTCCCTG
ACTGAGTTCATTTGGACTCTCAAGGGATGCCCTGGAGCTAGACTCGATCTGAGTGGTTGG
ACTAACTCCTCTTTGTTTTGTATTGAAGAGCCAGCTTACCCCGCCATTTNTAAACCTCA
GGCCAGGAAAACCAAAAAACAAAAAACCCAAACCAAAAAACAAACCCACCTTCT

TABLE 1

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TNAGAANTNAGTAANCTTAAGGCTTNAAGAATCAACAGNGCCCCTTTGGGNATTAAGGGC
CATT

Sequence 683

CCGCGGTGGCGGCCCGAGGTAATAAAATACTATCCTAACTTTTTATGTGTTTTTTTAA
CTTGTTTTTAGAAGTTTTGTAGCGTTTTTAAAAATGATGTATTTATAACTGGTTAGGA
TGCTAATATCTGTATCTTTTACTCTATAACCTAATTTTTACATTTTCAGAAAAAATTTT
TACAACAATGTAAAAAATACATGGCCCGGGTGGCTCACGCCTGTAATCCCAGCAC
TTTGGGAGGCCGAGGCGGGTGGATCACCTGAGGTAAGGAGTTAGAGACCAGCCTGGCCAA
CATGGTGAAACCCCGTCTCTACTAAAAGTATAAAAAATTAGCTGGGCATGGTGGCAGGCGC
CTGTAATCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATCGCTTGAACCCAGGAGGCAAA
GGTTGCAGTGAGCCCAAGATCCGCGCCATTGCACTTCTAGCCAGGGAGAGAAGAGCCGAG
ACTTCATCTTAAAAAAGGTC

Sequence 684

CGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACACTCTGGCCCTGGCTTTATTT
TTAGATTTTCTTTCCCGGTTGATATCGGAAGGCACAGAGGCAGGAGGTGGGGTGGATAG
TAATGTGTGCCCCCTTGGGGGTNANAGTGAGGTGGAGGGGATGTTAATNACCATGAGAG
GCAGAGGGTCAGNCNANTTTCCANNGCTTCNNGCTTCTTTAAATGANGGAAAACACGTG
CANGTNTTAGGAGACAAAGGAAGGGAANTGACTGTTTCTGGCCTGGTNTGTGGGCCAG
TNGNCTGNTNCNTTCAGTGNCTNCGTGCANTTNGACTNTACACNTANGNNGGCAGGCATA
GGTGTNCGGTTNTGAAAGACNGNNNTCTTNCACATTCTCTNCTGCTCTAGGGACTGAC

Sequence 685

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGCCGAGGTACTTTAGTAGAACTCTA
GGAAGTGAACCAACCCTTTTAAACAACAGGGGAGTGCTTGATGAAGGAAGAGGCTACCGA
TCTTTCATAAGTATGAATAAGCAGCATGCATAAACCAATTACCTTCCCCTATTCTCACA
ACCACCACCACACCCACCACCTCTTGTTGGCAGTGGGGATAGCAGCCCATGTTCTCTGG
AGTTGCTAACCGGTGCCAGGAGGGACAGTAGGGATCATGTCCTTCAAATTTAGGGTTGT
ACCT

Sequence 686

CCGCGGTGGCATGCATCAAGGTGACAGGTGACGGCATGGTTATGGATTAACCTACCAAGG
AAATGAGTGTGGAAAGAAGAATGCANAAATCTGAGGACTAGAGCCTGGAGATGGGGAGCT
TCGAGCTCAGAGGAAGAAGAGGATCTTCATCACGGGGAGACATCAGCCTTCTGAGTATCT
GGGACTGCAGGTTATGTGCCACCACACTCGGCTAATTAATAAATTTTCTTAGAGACAG
GGTCTCTCTACGTTGCCAGGCTGGTCTCAAATCCTGGGCTCAAGTGATCCTCCTGCCT
CAGCCTTCCAATGCCTTGGGCTT

Sequence 687

ATGCATCAAGGTGACAGGTGACGGCATGGTTATGGATTAACCTACCAAGGAAATGAGTGT
GGAAAGAAGAATGCAAAANTCTGAGGACTAGAGCCTGGAGATGGGGAGCTTCGAGCTCAG
AGGAAGAAGAGGATCTTCATCACGGGGAGACATCAGCCCTTCTGAGTATCTGGGACTGCA
GGTTATGTGCCACCACACTCGGCTAATNAAAAAATTTTCTTAGAGACCAGGGTCTCTC
TACCGTTGCCAGGCTGGTCTCAAATCCCTGGGGCTTCAAAGTGAATCCCTCCCTNGCC
CTCAGCCCTTCCAATGCCCTTGGGGGCTTACAGGCCATTGGAGCCCCACCATGTGCAAA
NGAAAAGAAAGCAATTTTTGGACATCCTGCCCAAAACAAACAAAGTTTGGGCAATGGG
TCCTGGTCAAGCAAAACAAGTGGGGTTTGGNGGAATAAACCAACCCTTGGGTAAAAAT
AA

Sequence 688

NGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGGCCATTGAGACTGCCATGGAAGACT
TGAAAGGTACGTAAGTCTGAGAGACCATTCAGGCTTCTGGCTCTTGACAA
AGATAGACCACTGGAACAATGAGAAGGAGAGAATTCTACTGGTCACAGACAAGACTCTCT
TGATCTGCAAATACGACTTCATCATGCTGAGTTGTGTGCAGCTGCAGCGGATTCTCTGA
GCGCTGTCTATCGCATCTGCCTGGGCAAGTTCACCTTCCCTGG

Sequence 689

TABLE 1
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CCGCGGTGGCGGCCGCCGCGGCAGGTACGCGGGGGGATACTCATTAGAGTTGCTCGGTGG
AGATGGAATGATGGTGGGGTGCAGTTAAACATGGCTGAGTGCTTTCTGCTTAAGGACCTG
ATGTATTAATGCTCTCCAGGTCATTCATATTTGGGGGAAGGAACAAAGAGGGTACCT

Sequence 690

CCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGCTATGAATCTCACA
GATGTAATAATGAGTTAAAGAAGCTAGGCACAAAAGAATATTACTGTATGATTCCAATCA
TATAAAGTTCAAACCAGATCAAATAATCAATGAACGAGGAGTCAGGATTCTGGTTATAT
TCAGGGATAGTGATGGAAGAGGGCTATAAGGAGGGTGTCTGGGTGCAGGTCATGTTCTAG
ATCTTGATCTGAGTGGGGGTTACATAGGTGTATTCACTTCATGAGAATTCAGAGGGCTGC
ACACTAATGATCTGTATAATGCTCCTCTATAGTATGTCACACTTCAAAAAAGTTTACAGA
AACAGTTCCTTCCTAATTTTACAGGGCCCTAAGAGCTAAAAACGCAGCCCCAG

Sequence 691

NCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGGCCATTGAGACTGCCATGG
AAGACTTGAAAGGTCGCGTAGCTGAGACTTCAGGAGAGACCATTCAAGGCTTCTGGCTCT
TGACAAAGATAGACCACTGGAACAATGAGAAGGAGAGAATTCTACTGGTCACAGACAAGA
CTCTCTTGATCTGCAAATACGACTTCATCATGCTGAGTTGTGTGCAGCTGCAGCGGATTC
CTCTGAGCGCTGTCTATCGCATCTGCCTGGGCAAGTTCACCTCCCTGGGATGTCCCTGG
ACAAGAGACAAGGAGAAGGCCTTAGGATCTACTGGGGGAGTCCGGAGGAGCAGTCTCTTC
TGTCCTGCTGGAACCCATGGTCCACTGAAAGTTCCTTATGCTACTTTCACTGAGCATCCT
ATGAAATACACCAAGTGAGAAATTCCTTGAATTTGCAAGGT

Sequence 692

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGCAGGCACTTTTTTTTTTTTTTTTTT
TTTTTTNCCATANAGATGGGGCTTGGCATGTTGCCAGGCTGGTCTCAAACCTNTGAG
CTCGAGCAATCTGCCACCTCGGCCTCCCAAGNGCTGGGATTACAAGCATGACCTGCCG
NGCTGGCTAAAGTTTCTTATTTATACTTACTCATTCTCTAATATCTGGATTTCCTTAGT
CATCTGTCACTTCTCCCTGCATATTTCTGTGATGTCTTTAGGTCCCTCCCACTNTTGT
GTAGCACTCCCTGGGGACCAATTTGGAAGGATGCTGAGTCATATGGTTTTTGGTTTTGAG
AGGGTTGAAAATGGAGACTCAACTCAATTTAGGAGCTATCCCATCATACTAGTAGCAAA
ACACGTCACACTTGTAGTCTCAACAAAAGACAAAAAGGTTTNAAGTTGGGGAACAAAT
AGCTGCCAAGGGTTNTTNTNTGACAAAAACATTGNGTTGGGGATTTAAATCNATGT
GAATCCTTAATCCCTAACTCATCCATGTTGGGGTTTTTT

Sequence 693

CCNCGAATTGGAGCTCCCCGCGGTGGCGGCCCGGGCANGGTACCTGCTTNCAGAAAGTGT
TATCATGATTAATGACAGACCACTGGCAGTAGCATCTCCTGAGGGAGGGTTAGAAATGC
ATATTCTCAGGCACCACTGCAGTCTTGCTGAATCTGAAGCTTTGGGGATGGGACCCGGTA
GTCTTTTTGGATAACTCTGCCAAGNGGTTCCAATGTGCTCAAGTTTGAGAGTTGCTGAAT
TAAAGCGCTGGGTCTTGCCAGGCATACCTGTAATCCAGCTCTTTGGGAGGCTGAGGTGG
AAGGATTGCTTGAGCCCAGGAGTTCGAGACCAGCCTGGGTAACATAGCAAGATCCTATCT
CTACCAAAAAAAAAAAAAAAAAAGTACCT

Sequence 694

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCGGGCAGGTACTGGTCTCTGTCTTTAC
AGCTGAAGCATCAGAGGATGGAGTGACCAGGCTGGTTCCAATGACAGTTATACGGCCATG
GGGAGTANACATGGAGTCTAATTCAGTGCTTGAGGCTAAGAATGAAGTTGTATGCATTGT
GGAAATTGTTCCAGGAGATCTTGCAACTTTCAAGTTTGAAGTCATGTCTGTGACAGTCCA
GGAATNTGATGCAGCTGTGGAAGACCAGGTGGAAGGGTGTCTGTAGAAGTTGTGCGCCT
CTCTGTGGCCGGGGTGTCTCATGGTACCT

Sequence 695

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCGGGCAGGTACACATGTATCANG
GAAAAGAAAACGTTATTTGTCCACAGATGCTGCTAGGAGCAGCTACCCCAAGACAGGCC
TTGCACCTTGGGTCATGACAATGCGTGGCTACTGAGAGCTGTTGACAGAGTGGACAGGGC
CCAGACCAGGACAGTCTCTTAGAGGTCTTCACCTCCTCAACCGTAACTTAATCAGCCCC

TABLE 1

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ATGCCGGGCTAGCCCCATGCCACAAAGGCTCAGAAATGCCCTGCAACATGTGGGACACCT
GGTAGTATCTACATAGGGGCCAGCATCCATCCCAGCTGCTGGGGGTGGCTCAAGAGCTGT
GAGGGACACCCTTTCCTGCCTGATACCGTGGACCAGTTTGCAAAGAGCTGACTGTCCTGC
TAGGCCCA

Sequence 696

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACTTTTTTTTTTTTTT
TTTTGTATATTTAGTAGAGATGGGGTTTTACCATGTTGGTCAGTCTGGTCTCGAACGNN
TGACCTCAAGTGATCCGCCCACCTTGGCCTCCCAAAGNGCTAGGATTACAGGCATCAGCC
ACTGTGCCCAGCCAGCCCTATGCTTTTAAGAGTTCGATGGTTGAAAGAGACTGAGCGGGG
AAGGTAGAGCGGGCAGGGGAGGGACTACTTGGAGTCAAGTCAAAGTTTTAGGGAAAGAC
CTGAATCTGAAAAAGATTATTTAACCTTTATGTGTCTGAAATACTATATTGTGCGAATTG
TACCT

Sequence 697

CCGCGGTGGCGGCCGCCGCGGGCAGGTACACAAACACGACAGAAGCCACGGAGCAAGCCC
TGTGCTGGCCCCTTCACATGACTTTAGGCCCTCTAGCAAGGTGATGTTTATTACAGGGT
TGCATAACAAGGCCTCACCATTCAAAAAACCTTGATTCTATTACATGTTTCACATTAA
CAAAGACTGGAAATTCNTAGGAAAGGGATCTTTTTATCTACATGAAAAGCACAGGCTA
GTAAAGACTTGTTGAAAAAGTTGAAAGAACATAAATGTATATGGTATATGCCACATAGCA
TAATGGAGGAAGATAGCAAATAGGAAACATATTGGTGAGGAAGACTGGAGTTTGATGATC
TAGTCAGGAAAACATCAAGTTAAATCCTTTACTTTACACCTAAACCATAAACTGGTGAAT
AAAACAAGTATGTGAAAGCACAAANAGAGAGAGGACAGGCCGGGCGCAGTGGCTCACGCC
TGTAATCCTACACTTTGGGAG

Sequence 698

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCATCCTATGCAGNCATNC
TGTNAGNACCCATTCCATTNTNCTATCCCTGGNTNGCTGGTGTCAATACTNTNAAGCGAN
TACTGCNNGNGCTCTNNTTTTTCCCTCANAGATACCNGTTGATTTCTTTGATTCTCTC
CATCTCTACAGGCATAATAACTCCTAATATTTAAAAACNCTGTAGAGGGATGNANNGAAG
CTGNGGNGAGAGCCCNTGGGCTTTTNCNNTGGGTNAAGATGCACATTCTGAAAAATNTG
GGCCTTGGCTTAAGCTGNACTAGNGCCGGCCACTCAGCTGATCTCACTAGCGTCACCTGT
CGCAATGGTGCTGAAGCGCACTNCCNAGAGGCCATAAGGCAAAGCGAGAGTNCNTGGCTA
TNGACTGGANCCCATTTAAGCAAAAAAACATGCCTCNCNANGACAAATTCNATCAACAA
AGGGNGGGCAATACAGGATCTGTACCTGCCCGGGCGGNNCGGGCANGAACCTTTTTTTTT
TTTT

Sequence 699

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCAGCCCCGCCACCCGGCTT
GTGTGTCATCCTGGGCCAGGCAGGTGATGATGCCAAACACAAGGCCAGCTATGTAACC
AAGTAAAAACTTTTCATCAGAATGCCCATCTTTGTGACCCACAGCCCATTGTCAAGAGCCT
TCCCTGTGCCAGGAGTTCAGCAGGTTCACCTCCGCTCCACTAGTCACTAAGACACGGAT
ATTTTAAGAATTTAAAGCCTCCACAAGCCAGGCACAATGGCTTACACCTATAATCCACA
ACTTTGGGAGGCCAAGGTGGGAGGATCACTTGAGCCAACGAGTTCGAGACCAGCCTGGGC
AACATAGCGAGACCTTGTCTCTACAAAAAATTTAAAGTTAGCCAAGCATGGTGGGGCA
TGTCTATAGTCCTAACTACTTGGG

Sequence 700

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTCAGTAGAGGCCAGGTTTCACC
ACGCTGGCCAGGCTGGTCTGATCCCCCGGCCCCAGGTGATCCGTCCACCTCAGCCTCCC
AAAGTGCTGGGATTACAGGCGTGAGCCACCGCACCCGGCTCTTTTTTTTTTTTTTAAAA
TCATGATTTTAACAGAAGCCTCCATTCAAGGCGAGACATGCCTTTTATTTCTCTAATTGC
GAGACACTTTTCTGAATCCTCTTGTGAGTTGCACCTTTTAATACAATTGAGGTGACACTG
TTCTTCATGGTGACACTGGTCTTTCCCAAGAGGTTTCAGCTAATTCAGTCTATCAGATT
TACATCAGATTTTAAATTTGCTTCAAACCTTGGGTGCTTGTATTCAAATTCATGCTTCAT
AGAAAAATGCATATCAAGTTCAACAGTTGACTAACTGCAGCCACGTTACAGTACCTGCC

TABLE 1
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CGGCGGCCGCTCTAGAACTA

Sequence 701

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAAAAGGCTGATACACAC
TGACAGATTTTGTAAACAAGGGACATTTAAACTGAGCTGGTAATAGACTTGATTTCTGGT
GTTGCCACTCAATAGGCATGACTAAATAGTGACCTCACTGTTCTACTTTTTATAATTAA
AATTTTAGAGGAAGCTGAGTTCCTGTATTTAACTACAAGTTAGAGACTCAGCCCACAAGC
TTTTTTTTTTTTTTTTAATATGGTTTCTTTTTTTTTTTTTGAGACGGAGCCTTGCTNTG
TCACCCAGGCTGGAGTGTAGTGGCGCGTCTNTGCTCACTGCAATCTCTGCCTTCCCGGTC
CAAGTGATTCTCCTGCCTCAGCCTCCTGAGTGGGATTACCGGCGTGCACCACCACG
CCCAACTAATTTTAGTATTTTAGTAGAGACGGGGTTTCCCATGTTGGTCAGGCTGGTC
TTGAACCTCCTGACCTTGTGAACCTGCCACCTTGGCCTCCCAAAAACGCTGGGGTTACAGG
CGTGAGCAACCATGCCAGCCTTTTTTTTTTTTTTATT

Sequence 702

AGGTACGCGGGATATATNTAAATTTAAGAAANCATCCCCGGTAATATGGCTCTTCATAAT
TCTAAGACTAAGGCTGGNGTAGAAACCTAACCACCTACCTTACAAGNGAAGGGGGCTATA
CCATGGGGTAAGCCAAGTTTGAAATTTATGGGGAATCNTACCCAACCTTGGNTTAAGGGGG
CCCTNGGATTGGCCTNGGGGGCCAAGNNTTTCTGTATTTTTATAAAAGGTGATCTTN
CATNGGTATTCCCTTGGTTTACCTTGGATAAGGGGGGATTACCAATGCCTTCTTAAGGAA
AAAAATTACCTTATTTGGGCCTTGGGGGGAAGGTAGGGTNGGGCTTCAATAGCCCTTGG
TAAATTCTCCAAGCCACTTTNGGGGAAGGAAGGGCCTGGANNGTTTTGCCGCCCACTT
ACCACTTCCCAAGCCCTTGGGGGGTGAACCAAGAAAGTGGGAAGGAACCTCTTGGCCCCCT
CAATATNNAAAAAAAAAATNAGAAAGNNAANATTNCACCTATTCTTACCANAACCCCTAAG
NACCTAATTTTTAAAAAATACCAAAAAGAATTGGCCCTNGTTTNTCAAAAACCACTAA
TTTGGGAAATAAANAANGGGGTGGAAGAATTATTTCTTTAACCCNNATNGGAATAAAA
ATNNATNNNATTNGGGGNTCCCTTGGCCCCNGGGCCGGGCCGCTTCTAAAAACNTAAGN
GGGGATCC

Sequence 703

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGNCGGGGCAGGTACTACTGACTTACCTGCC
ATGGGCTTTCTCAAGACAAGTCCTGCAGGAGAGGCACACTCACTTCTAGCGTCAACTATT
GAACGACCACTGCCTTCACTCCTCATCTCTCAGCAGCAGTGGTCACTGGATCCAGTGCT
ACATCAGAAGCCAGTCTTCTCACTACGAGTGAAGCAAGCCATTATTCTTNACCACAG
ACCCCAACTACACCCACCTCTGGAGCAAACTGGGAACTTCAGCTACTCCTGAGAGCCTT
TTGGTAGTCACTGAGACTTCAGACACAACACTTACCTNAAAGATTTTGGTCACAGATACC
ATCTTGTTTTCAACTGTGTCCACNCCACCTTCTAAATTTCCAAGTACCT

Sequence 704

CCGCGGTGGCGGCCGAGGTACTGTGAAAGAACTAGCACTTTGAGCAGAGAACAAATGCCT
TACTTGAGTTTCCCCTGGACTCTATCCCTATTCAAAGATGCTTGGTTATACCTCAAGAGG
GAAGCAATCCAGACCAACTCCTATGACATGACAGGCACTCAAGCCTGATGAGGCAGAAAC
CTGGCAGCTGTAGATGTTGGAAAGGATAATTTATGTGTTCAAGTGAAGTACTAGGATTCTAAGG
GCTAGATGCTAGCTTCAAGCACGGCTGGATCTAGGAAGCCCTTTTGCTCTCCCTTTTCCT
TGGTCTACTTTTCTCTGTAGGCAAGTTCATTCTTCTAGGCAAGTCTCTGCATGTGGC
AGCAATGATGGACACTGGAATCTCTGGGTATTCTCAGAGTTCTTTCAGTAGCAG

Sequence 705

CGGGCGGGTACCTTACCACCCCATCCCCAGAGCATTGCATGGGGTGTTTGGCACACAGTA
GGTGCTCAATGTAAACGTGTGCACTGTGGCATGTTAGAGCCAGACAGGATCTCATCCAGC
CCGTTCTCTGCACCCCTCCCTCCCTCTCCAAGTAGCCCTGCTGTGGGTTCAAGTAAAGA
GGGGCTGGGGCGCTGGTCTGATTGTGTGGGTGATTTGGGGAGATCTTCTCTCTCCGGA
ACCCCAAANGGTTGGGACAAACACAGCAACAAGCCCAGCTCCCTGAATTTCAAGTGATTCA
TTTGTGGGATAAAGGAGTGAATGATAAAGTGAAGGACGACTGTCCCCGCGTACCT

Sequence 706

NGGTTAANTGCCGCCNCTTGGCCGTAAATCATTGGGNCATTAAGCCTGGTTTTCCCTNGTG

TABLE 1
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TGAAAAAATTTGTTATCCCGCTCCACAATTTNCACACCAAACATTACCGAAACCCGGGA
AGNCAATAAAAAANTGGTAAAAAGCCCTTGGGGGGGTGGCCCTTAAATGAAGGTGGAAGC
CTAAACCTCAACAATTTAAATNTTGGCGGTTGCGGCTCAACTTGGCCCCCGCCTTTTNC
CAAGANGCGGGGAAAAA

Sequence 707

GGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGAACATCCATGGCAGACGCTATT
CTTCCCTCTTAGAGATGCAGACACTGAGGCTCAGAGAAGTTGTCCCGCACCCAGTATGT
GATGGAGAGGTAGAGGGTAAAAACATCAACTGAAGGATTTAGCATTTGGGAAGAAGGAA
GAAGCCCAAAATGGAGTAGATCAAAGGCTCCCCCGTGAACAAATTTAAATTAAGGAGAA
AGAAGCAGAATTCAGTCTTCTCCACACCCATAACCAAACAGCTCCTATGAAGGCACCAAG
CCTGACGCTCATCCCAATAAAAAGGAACGATCTGGAGAGAGGGGCAGCCGCTGGTGACAA
GAGAACCCCCCAGGCAGCCTCGTCATCTGGCCAG

Sequence 708

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTGGGGGACAGATATCATAT
AGGGGATTTCATGTCAGTGACCAAACGAAGTGACCATTACAGCCCTTTNGAAACCTGAGGT
GTAATTTTTAAAAATGAACCTCATGACTTTAATAGTCATAGACTCAAACCTGAGTTGATTA
TTATGAATTAGTTTATGGGAGTCTCAATATGTGAATATGATGGAGACAAGTTTTGGAATA
CAGATAAATCAAGTCACTGTATTCACCTCTCTCTCTCTCTTTGAATAGCCTTATCTTTG
CCTATACACACAAACAGTGCAGCCATCAAAATTTTCAATTTACAAAATGTTACAGTCAT
GCTTCTTCTTGACTAAACACTGGGGTTGCTGCCAGTGGTAATTGGCTTGAACCCAGCTA
ATTTTATATATCTATTTAGTCTGGATATTCTAGATGAGTGGGCACTATAGT

Sequence 709

ATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACCCACGTTTTGCTCCCACTCCTT
GACCGCAGGGGCTCGGACACAAACCCCTGTACCAGGAGAGTCAGTCAGCACTACTTGGG
AGGGCTAAAGGGAAATTTGGAAATAAAATTCAAAGTTTGGAGTAAAAAATCAAGTGT
TGATTTTATATTCTTTCCCTTTCTGACACAGCCTAAAGCGTAGGGGGAACATGTGTTAT
CTGTGGGAGATAAACAAGATGGAGTCCCAAAGACTTTAACAAAATATTTTTTAAAAATC
CACTAGAATAGAAAATACATTATTTAGATATACTTTATGCTGAGAGTGAGTATATATGCT
TGTCCTATTTAACTTGTGAGAAAAAGTGGTATCCCTTGATACATTTAGAAATATGGGGG
CTATCTTGGTTTCATTGNGGGGGGTGGGGGCAGAAGGAGAATAAATGCAGGATGCCCTTGT
TGAAAGGAATCTTAGCATGGCCACAGGGGACGTTTCCAGTCGATTACCAAGGAATGCCA
GCCT

Sequence 710

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACCCACGTTTTGCTCC
AACTCCTTGACCGCAGGGGCTCGGACACAAACCCCTGTACCAGGAGAGTCAGTCAGCA
CTACTTGGGAGGGCTAAAGGGAAATTTGGAAATAAAATTCAAAGTTTGGAGTAAAAAA
TTCAAGTGTTGATTTTATATTCTTTCCCTTTCTGACACAGCCTAAAGCGTAGGGGGAACA
TGTGTTTATCTGTGGGAGATAAACAAGATGGAGTCCCAAAGACTTTAACAAAATATTTTT
TTAAAAATCCACTAGAAATAGAAAATACATTATTTAGATATACTTTATGCTGAGAGTGAGT
ATATATGCTTGTCTATTTAACTTGTGAGAAAAAGTGGTATCCCTTGATACATTTAGAA
ATATGGGGGCTATCTTGTTTCATTGTGGGGGTGGGGCAGAAGG

Sequence 711

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGACGGTGAGCCGGAG
GAGTCATGTCAGAGGGGCGAGCAGGAGCGATTCCGTCGCCAAACAGGTTATGAGTGCCAG
TGAGCCGCCTTAGATAGAAGCATCGTCAGCACTTTATTAATGATGGATAGNGAGAATAAA
CCCGAAAATGACGAGGATGAAAAGATAAACAAGAAGCACAAAGACTTGACAAAGCTTTCA
TCCATAATGAAGACGGTGGGCCTGTATCTGATGTGATAGCAAGTTTCCCTGAGAATTCT
ATGGGCAAAAGAGGTTTTTCAGAATCATCGAACTCTGATAGTGTTGTTATAGGAGAAGA

Sequence 712

NCCCGCNGTGGCGGCCGAGGTACTCTTATGAGAGGAACATTAAAAATTTGCAATTATAATG
CAAAGAAACAGGAGACGATCGTGAGAATAAGCAATGTCACACACATTTCTCTCCAAACTA

TABLE 1

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TATGTATCTTGTCTTTAAATTCTTTGACGTGTGTGTGGGGCCTGGGTGGGGGGTGTGGG
TGTGTGGTGTCTAAGGGCCTTTTCTACTAATTCCAATAACTGGGTATCTGTGAGGCTG
CTTATTCTCACTGTATTTTACTGCTTCTTGCCTTCTTGTTTTTTTTTAAACCATACT
CAGGTATGGTTAAATGTAAATGAAAGAA

Sequence 713

CCGCGGTGGCGGCCGCGGAGCAGGTACTGGGGCTGCACAGGCTGTGGCAACACTGGCTA
GTCAAAGCCTGGAAAGACCTGTGAGCTTGAACCTCTTGGGTGCCATTGTTCTGTTGGT
TTCAGCAGTGAGACTGAGAGAGCCTGTTCTGTTAGAAAAGCCACAGTGGTTTTCTAGGT
AAAGTCTGCAGGAGATGTCACTTGGTGCCTTTTCAATACGAGTTTTCCACCTGCATTTT
GGAACCATTATGGGCCTTTTAAAAATTTATTAATAAGTCTCTTAAATATTTTATAATCTA
GCTTCTGAGACAAGATGATTTTAAACAGTTATATGCTCTAAATTAATAATTTA

Sequence 714

AGGTACCGTGTGAGCAGGTGGCGTTCACCAGGGGTGAGACTTTATTGACAGTAAGTTGCC
TCTGCCAAAAACGCCCTCATATGTCTGCTGATGTTGAATTNCNNCCNNATGGCAGGAG
GTTTTTGGTCTCCCGAGNTTTAAAAAAAATTGGTTAAAAATAACCTGGGTTTGGTTN
TTTCTTTGNTATGGGGAAGGCCCTTCCAAGNAAGNGGAAAATAAANAAAAAAGTAATTA
NANCCTAACCTTCCTTAAGGGGGAATTAATTGGTAATTTCAAAATTTTTTGAATGGCC
TTANCTTTNTAATTTTTTTAAATTTTTTAAATTTTGGGANGGAAACCAAGGGGGGGG
TTTCTTNTGGGCCTTTCTTGGTTTGGCCCCCAGGGGGCNTGGGGNANGGTTGGCCAAGG
NCCAATNTTNNGCCAAAATTTCAAACCAAGGGCCCTTTCAACCTTTGGGCCAAGNTC
CCCCTTCAAAAACCCCTTTTCNNCCTTGNITTTGGGCCCCCCAAAA

Sequence 715

CCGCGGTGGCGGCCGAGGTACCGTTTTATGATGATAACATAACTTTAATGCTCCAACCTG
AGAAAGATAAAATAGACTAAGATGACCATTTGAATGCAAAACAGAAAGTTCTAAATGAACAA
TCAAGNCAGGACCTGGAAATTTCAAGTCCCTGGTGGTTGGAAAANTAAATTAATTAATA
ACCAANTTTCTTGGTTTTTCCAAGGAAAAANTGGNTAAAAAAAATTAAGGTNTTTAAAT
AANCCCCAGGGAAAAATTTCAAATTCAAAATTATTAATAAGGCCTTAAATTAATTAAT
ATTTTTTGGCATTTTCAAGGCCCAACCTTAAATTTGGCCTTANCCAAAATNGGTTTTT
GGGTAATTAACAGGGCCAAATTTNATTAATAAAATTC

Sequence 716

AGGTACACGATTATTTACCATCCAGGTATTAAGCCTAGCACCCAAGAGTTTTTTTTTG
CTTCTCTCCTTCTCCCTCCACCCTCAAGTAAATCCAGTGTCTGTTGCCNCCNTNCTT
CGGTANNAACCAAGGTGGTTTTTTTTTAAATTTTTCCACCAAAAAAAATCTTCNCATNC
AACCTTCCTTCTTTTCAATTTTTTGGCCTTNNCCTTAAACCGNAACCTGGAAAAACCT
TNCTGGGTTNTGGCTTCCCCAGTAAAGNACCAGGAAANTTTTAAANTTTCAATTTT
TTTAATTTCCCGGGTTTTTTAAAAAAGGGTTNAAAAGGGAAAGGNTTTCCTTAACCCCCA
AGTGCCCAAGGGGAAAGNTTGGGGTTGGGGGGCCTTCCAACCNAATTNCCCTAANTTAAA
AATTTTTGCCCNAAAGGGCCAAACCTTTNNTTTGGGAAGNGAAAGGGGGGCCCCCGGA
AAGGGGGCCCCGNAAGGGTTTGGGGGAAANTTCCAACCNAAATTTGNTAAAGGGGGTTTT
TGGGGGGAAAAAG

Sequence 717

CCGCGGTGGCGGCCGAGGTACTACAATAAGGACAAATATTCAAACATTCTGTAAAGTAA
AATAAGACAGTCAAAAAGGAAAGCTGTATAATTACACTCATGTAAAAATATTTAGTCCAA
CNCTCACAGGANAACCAAGGTGGTCAATAGGTTCTCAAGCCAGGTGGCCACCCCAAG
GAATGGTTAAACCAAGGTTCTTCTTCNGTTAAGGTTCTGGAAGGAATTAACCAATT
CCCCAAGGAGGTTTNTCTTTTTGGTTTTCTTAACCTTCTTAAAGGGGAGGAATTTTAAAG
GGGAGGTGGTTAAAAANCAACCAAAAAAGGGTTGNAAAGGNTTTTGGGGGAAGGNTTT
GGGAAAAAANGNTTTTTAAAGGNA

Sequence 718

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGACTGTCTCAAATTCCT
GGATAGCTGTCCCTCATGTACCTAGCTGCTGAGAGCTTTGTGATCCTAACAGGTGATGA

TABLE 1

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CTCAGACCGACACTGCATTGGTAGGAATCCACAAATAGGTGCCTCAATGTGCCTAGATT
GAAATATCAGCCTTTCCAGACTGACCTGATGGGTTGACTTCAGGTGTGGTGTAAACACC
TACATTTTAATGTAAACATTTAGTGTAAATCAATGAGAACTATCATTCTGCTTTAATCAC
CATGAGTTCTGAAATAACAAAGGATTTGTCTGACATTCATTCTAAGAAATTCATTCTTAC
CTGACTAAGAACTTTTTTAACCCGGCACAATAATAAGAAATGACCTGTNAGTACCTGC
CCGGGCGGCCGCTCTAGAACTAG

Sequence 719

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGACTGTCTCAAATTCCTTGG
ATAGCTGTCCCTCATGTACCTAGCTGCTGAGAGCTTTGTGATCCTAACAGGNGATGACT
CAGACCGACNCTGCATTGGTAGGAATCCACAAATAGGTGCCTCAATGTGCCTAGATTGA
AATATCAGCCTTTCCANACTGACCTGATGGGNTGACTTCAGGTGTGGNGTAAACACCTA
CATTTTAATGTAAACATTTAGNGNAATCAATGAGAACTATCATTCTGCTTTAATCACCA
TGAGTTCTGAAATAACAAANGATTTGTCTGACATTCATTCTAAGAAATTCATTCTTACCT
GACTAAGAACTTTTTTAACCCGGNACAATAATAANAATGACCTGTAAGTACCTGCCCG

Sequence 720

CCGGGCAGGTACCGCTGTGTCCGGGTGGGTGGTCAGAATGCTGTGCTCCAGGTGTTTACA
GCTGCTTCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTGCGCAAATGTTGCC
TGTGCCCAACTGGGTTTCCCAAGCTATGTGAGTTCAGATAACCTCAGAGTGAGCTCGCTG
GAGGGGCAGTTCGGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTG
ACTGCATTACACCACTCAGTATATGTGAGGGAGGGGATGTGCCTCTGGCCACGTGGTTAC
CTTGCAAGTGCACAGCCTGTGGTCATAGA

Sequence 721

CCGGGCAGGTACCGCTGTGTCCGGGTGGGTGGTCAGAATGCTGTGCTCCAGGTGTTTACA
GNTGCTTNGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTGCGCAAATGTTGCC
TGTGCCCAACTGGGTTTCCCAAGCTATGTGAGTTCAGATAACCTCAAAGTGAGCTCGCTG
GAGGGGCAGTTCGGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTG
ACTGCATTACACCACTCAGTATATGTGAGGGAGGGGATGTGCCTCTGGCCACGTGGTTAC
CTTGCAAGTGCACAGCCTGTGGTCATAGAAGGGGCTACAGCTCACGCATCGTGGGTGGA
CATGTCTTGTCTCTCAATGGCCCTGGCAGGCCAACCTTTAGTTTCAGGGCTACCACCTG
TGCGGGGGCTTNTGTCATTACCCCTGTGGATATTAATGCTGCACACTGNGGTTATGACT
TGTACCTTCGGCCGT

Sequence 722

GGAGAGGAAATGTGTAGGGGTGAGGGATGATACAAGAAAGCCAAATCCTCATCTTCTATA
GTAGAGAGTCAGCGGATAAAACCTAAAAACAATACATCAAGAAATACTTACACTTATGGA
AGGAAATACCAGAAGTTAAAAGGGGTACTTCTGGGACATCAGACACCAGACTGCAGGGA
AGGGCTGCCTCTTGATTAACAAGCTTCCAGTATAATTTGCTTTTAAAAATAGGTCCAT
GCATTATTTTAATAAAAATTANGCTGGGCGTGGTGGCTCAGGCCTGTAATCCCANCACTT
TGGGAG

Sequence 723

ATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTAAGCAAGCTGTGTGACCTA
GAGCACAGTGTCTTTGAGTTTTTGTGCTTCTGCTGTCTATAAAATGGGGTTCACAC
AACTCACCTTACAGGGCTGTAAGATTAGATTACACAGAAAAATATTTTTTGGCTGTGGG
GGCTGGAAGTGTTGCTGATTAGCATTGAAATCCCATCCTGTGGGTGAGAAAAACCCACC
TTATGACTTGGTGGGAAACAAAGCCAACCTCCCACTGATGAAGCTGAAAGTAGCAGAACC
TTGCTTCTACTGCCTCCCTTGCAGCTAGAGGCAGGCACAGGACTAGCCTGTCAATTGGAT
GCAAATGCTCCAGGCCTGAATCACAACCTGGTGAAGTGCACCCAAGTCTATTA

Sequence 724

GGGGCCATTGAGACTGCCATGGAAGACTTGAAAGGTCACGTAGCTGAGACTTCTGGAGAG
ACCATTCAAGGCTTCTGGCTCTTGACAAAGATAGACCACTGGAACAATGAGAAGGAGAGA
ATTCTACTGGTCACAGACAAGACTCTCTTGATCTGCAAATACCGACTTNATCATGCTGAG

TABLE 1

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TTGTGTGCAGCTGCAGCGGATTCTCTGAGACGCTTGTCTATCGCATCTGCCNGGGCAAG
TNTCACCTTCCCTGGGATGTNCCCTTGGACAAGANACAAGGGAGGAANGGCCCTTAANGAT
CCTANCTGGGGGGGGA

Sequence 725

TAGGGNGAATTGGAGCTCCCCGCGGTGGCGGCGCCCGGGCCGGTACCCATAAAAAATTAAA
AACTATTTTAAAAATAAATTCCATTTGAGCCACTCCTTCAAACCACCCAGAGTGGGTAG
ACGTCTTTTCGTGCCTCTAAGAAGCCCCATCTCTATTCTGCGTCTCACCTTGCAGGGCTGC
TCATCTGAATCCTGAAGATGGTGGACACCCATCTGCTAGGACTGAAATGAATAGGACAGA
GGGAGGTGCAGAGTGAATGGACCATACTACCTGTCTCATCTTGGCAACGTGTGATTGAATAA
AACAACCTTCTTAGAAGTTTGATAGAGTGATTTGATAATGTAATTTACAAGTGATCATT
CTTTTAA

Sequence 726

GGAGCTCCCCGCGGTGGCTTTTTGAGTCTGGACAGGNCTCTGTTTTTGCTTTAAAGTTAA
GAGAGCTAAATAATGATGGTAAAAAGATAATAAAATAGAACATGAAGGGCTGTCAGTCA
GTGTAGGTATTTCCATCCCTCACTTTTCAAGTGAGGTCACGGAGGCTCAGAGCGATAAG
GAGACTTGTCCAAGGCCACACACCGGCTGGTGTCTAAGCCGGGACTTGAACCCACGCAGT
CTGACTCTAGAGCCCAAGCTCCTAACTATGACATCCTATTTGATACACTGTTTTACTGGA
GAAACAGATCATTTGACAGACATTCTTCTGTAGCAATTTGACAACCTCTTCCCCAGTT
GTCTGTACCTGCCCC

Sequence 727

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCGCCCGGGCAGGTACGCGGGCTA
TTCTCTTACAGCTAGGACCCAGCGTTCTGGGCAGAATAGCAGGCAGCGCAGTAGCTACTG
AGATTATAAGTGGTAGGTTTATGGAGCTGTGACCACAACTCTCCACAAGCCAGTGCTGTC
TCATGCAAGCACTCTCAGTGTCCAAGTGCTGAGTGTGTGAGTGGTCTGGGCTTTGCAGGG
TCGGCCAAAGCTCTTGGAAGAGCAGGCTTTGTTAGCTGGGGAGTCATCGCTCCATGCAGGC
CCTGAGAATGGAGCATCCTGAGTGGACTGGTAGAGATGGGGCATGGGTCACTCTAGGGT
TTGAGCTACTTCTGCTATTTTTGAAATTCTGGTTTGAAGTGCAGGATCGTGCTGAGTTTG
GCACAGACTAATTTCTCTGTTGGCAGCACATGATGTATCAACTCATGTGTCAGTTGGTTT
G

Sequence 728

CCGGGCAGGTACTACCTTCTCTGCTACAAGTCGAGCGAGGAGCCCCGCATGAGCCCTGAC
ACCTGTGCCACCATTTTGGAAAAAGCTGGTCTCGATAACTGGGCTCTTGGAAAAACAAAA
GTGTTCTTAAAGTATTATCACGTGGAGCAGTTAAATCTAATGCGAAAGGAAGCTATTGAC
AAGCTTATTTTGATTCAAGCTTGTGTCAANAGCATTCTTGTGTTCAAGGAAGGATACCAA
AAAATACAGGGAGGAAAAAGGAAAGGAAAGCCGCTTATAATAATACCAGTCAGCTTGCAA
GGAGGGACCACCTTGTGTCAGGGAAAAACAANAAGAAAAGGAAAATTTGGTTTGGACCATTG
AAAAACCCCAGCANTTAACCAACCCAATTTCAAAAACCTTTCTTGATTGAGGGAAATTTT
GACTTACCAAGAAAAAACCTTTGGNAAAAATACCCANGGGGGGNTCCTGGGNAAAGGGNA
GGANGGGAGCCCAAAAAANAATTTGGANAACCCCCCNANGACCGACCCCCCNGGAAACC
CCCA

Sequence 729

CCGCCCCGGGCAGGTACTTTCTTTTTTTTTTTTTTTTTTTTTTTTACGGAGTCTTGCTCTGTC
ACCCAGGCTGGAGTGGATGGTGTGATCTCGGCTCACTGTAACCTTCGCTCCCAGGTTT
ACGTGATTCTCCTGCCTCAGCCTCCGGAGTAGCTGGGATTACAGGTGCACACCACCATG
CTGGCTAATTTTTTGTATTTTGTAGAGACGGGTTTACCATTGTTGGCCAGGCTGGTC
TTGAACTCCTGACCTCAAGTGATCTACCCACCTTGGCCTCCCAAAGTGCTGGGATTATAG
GCATGAGCCACCACGCCAGGCCCACTCTNTAAATTTTGACCACCCTGCCTTGAGTGGTCT
TCTAGCACCTAACCTCTGTCTAACCTTCGAGAGCTTTGCACTAGCNATTCCTGGGGACC
AGCTATGGTTGGTATCTTCTCAACTTTCTAATTTTTTAAAAATATTATTATTATTATTA
TTATTTTAAAA

Sequence 730

TABLE 1

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TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCTGTGTGGAA
AAGAATGCTTGCAAAGCTTGTCACCCTCACGAGAATTCCTCTGACAGACATTTGCCTTTG
ACAGTGAAAACAGATATTAAAGTGAAAGGAGAAGAAACCGAAGAGCATCAGAGGGGACGA
CTGGGTTACTTAACTGTTGGGGAGCAATCTGAGGAGTTGGTTACCAGAGAAACTGGCGAT
GGCGATCCCGTGAGCAACATCTCTCAGACCCATTTTAAATGCCGGGGGATACTTAATCAT
GCTGAAAAACAGCAGAGCCCTGAGGTTTTGGACTACATGTTGCAGAAAGAA

Sequence 731

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGAGGTACACTACACCTGGGACAAA
TACTTTTTGTGAAGNCAGGTAAAGCCTTTGCGTGCAATATAGCATCTCTATGCAATGCA
NCAACTCCTCGTCTATCGCTACAGTAAGAAAACAGCCACGGGTCAGGTGTTGNGGCTCAC
ACCTGTAATCCCAGCACTTTGGGAGGTCNAGGTGGGTGGATCACTTGAGGCTAGGATTTT
GAGACCAGCCTGACCAACATGGAGAAAACCCCATCTNTACTGAAAATACAAAATTCCCGGG
TGTGGTGGCNGCATGCCGTGAATCTCAGCTACTCGGGAGGCTGAGGCAAAAGAATTGCTT
GAATCTGGNAGGCGGNCGTTTTGNNGGTGAGCCAAAATCGTGCCATTGCACTCCAGCCTG
GGCAACAAGAGCGAACTTTCGTTTCAAAAAA

Sequence 732

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCACGGTACTAGTTATTT
TAAATCCACTCATAACTTATCGGCCAAAAGTAGTCACATGGCTCCACCTAATCACAAGT
GGAGCGGGAAGTGCAATCCTACCTTGCTGGGGAAGGTATAGAGATAGACCAGCACTAAT
GACTACCACACTTCGCTAAGGTCACATAATAAATAAGCATCAGACATCAGGTGTGGTGGC
TCATGTCTATAATCCCAGCACTTTGGGAGGCTGAGGCGGGCAGATCACTTGACTACAGGA
GTTGGAGATCAGCCCGGACAACATAGTGAAACACGTCTCTACTAAAAACACACGCAAAAA
AATACGAGGCATGGTGGTGCATGCCTGTAATCCCAGTTACCTGAGAGGCTGAGGCACGAG
AATCACCCTTGAACCCAGGAGGCAGAGGTTTGCAGTGACCCGATATTATGTCACTGCAAG
TNCAGCCTGGGTGACAGAGCGAGACCTTGCTNAAAAAAAAAAAAAAAAAAGAAAA

Sequence 733

CGACCACTATAGGGCGAATNGGAGCTCCCCGCGGTGGCGGCCGCCGGGCACGGTACTGC
TGGTTCAAGCCATTAAATTACATCACAAAGGTTTGGTTTCTCTGTATATATTTCTCTGGG
GCACTTTTGCTANGTTGGCTCTATCCTGAGGCAGNCTCTCTCCTCGTGGNAACCAAGTGG
CTCTAGCAGCCTCAGCTTTATATCTCTCAAGAGTAAGTCCACCGTCACAGAGC

Sequence 734

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACACACCACCACA
CCTGGCTAATTAATTTAAAAAAATTTTTTTAGAGATGGGATATCTNTATGTTGCCAG
ACTGGTCTCAAACCTCTGGCCTCCAGCAATCCTCCACCTCACCTCCCAAAGCCCTGGGA
CTGCAAGCATGAGCCACCATGCCAGCTATATTTTCTGTAAATTGCTAATGANAATGAAA
CATGTATGCTGTGGACAGAAGCCTTGTTGGACCTAGAGCCCATGCTGGGTCTTTGCCTT
AATAAAACATAACTCTGGCATTACATATATAATTAACAGCCTCAAAGANCATGTTTCTTT
ATTAAACTCTGACTGTTTCAGCATTATTTT

Sequence 735

GCGAATTGGAGCTCCCCGCGGGGGCGGCCGCCGCCGGGCAGGTACTACTGTGTCTTTAGAT
CACTCTGCCTTGATCACTCTGTCCCGTCACTCTGCTATTTACCTGNCAGNGAAATACCT
GGTATCGTCTGCCAACGTGAAGCATTGAATGCTTNATACGTCTCCATCCTGATTGTTTA
GGCTTTGAATGCTGAGAAGTATCTGCACTTTGTTGGTCA

Sequence 736

CCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGAAGTACCCTTAAGCCCTGCTCCT
TTGTAAAGTCTTTTTGGATTGTCATCATCAAGAGTCAGTNGATCTCCANCTTCTCAGAAC
TCACAGGGCACTCTGTCTAGGCATTGCTGACCGTCTGCAGTGTGAGATGGTGACTTCTGT
ATGTGTTGTGTTTCCCGTTAGACTCTAAGGTTTTTAAAGGCGAGACTCACTCCTGCAGAA
GCACATAACACAATGCCAAACTCTTATTTACGGAGGTCCTGGCGCATTGTCAGCTTTTGG
TAAATGCTTTTCTTTGTTGAATACTTATCTTCTGTGTGCCAAGATTTGTGTTAAGTGCT
AGAAAAATGTGGGAGGTCACCGCAGACCTGTTCTCATGGAAGTATGGTGTGTAGTGGG

TABLE 1

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GTGNGGATTAACATAAATAAAATGATGCGCAAATGAACACAAAATTCAAATTGATGATGT
GTACCTGCCC

Sequence 737

TNTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCCCTGAGCAGTCGAAG
TGGATGCCCAGACCAATGGCCAGTGCTAATATCAATGCAANGATCCCAATGACGATGATT
GGAAAAAATTCAATGGCAGCAGTGACAGGATCTGTGCAGCAACAGCATCTGCATCTGGT
GCAACAGGACTTATTTTCAAATCATCAAGGCCAAAAAGCGATCGGAATGAGAAGGGGGCT
TCAACAGCAGGCGGATCATTTTCCCCATGGTGACTATTTTCAAGGACCTCTGACATCCGGC
TCCGCTCCACCTCTACCTCATAATTCCGAGTCCCAAAAATGTAGATGGCACCACGGAA
GAGATAGTAGGCCACAGTGTTACTGGCTTCCCATAAACACAGCCCTTTCTGGCTCACAC
GGGGCATGACCTCCCGCGTACCT

Sequence 738

AGCTCCCCGCGGTGGCGGCCGAGGTACATGTAGTTGGATGTGAGGTTNGATTAGATTCT
GGGGTTGGTTTGCTTGTTTTGGTGGATNGTTTNTGAGTCGACTTTACAGAGGGTTGTTA
TCCACCAGAAGGCACATGTGCTTGCCTGTGTCTTTTTTGTATTGTTTTGAGGCAGAGCC
TCNCTCTGTCTTCCAGGCTGGAATGTAGTGGCACAATCTTGGCTCACTGCAACCTCCACC
TCCCAGGTTCAAGTGATTCTCTGCCTCAGCCTNCCAAGTAGCTGGGATTACAGGTGTGT
GCCACCATGCCAGCTAATTTTTGTATTTTCAGTANANATNNGGTTTTTTGCC

Sequence 739

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTACACTTCCACGA
GAAGAATTAATATTGTAGTGTTAGGAAAAGTAGCAATTTAACTAAACAGCATCAAGTTAC
AAACCAGGAAAGTGATTTAAACTAAATGCTGGCTTATCTTTCTGAAACAAAGCATCTAA
ATTTGACAGTCCAAAATGGCACTTATTGAGTGTCCGTGACAATACATGCTGACAAGCAGC
ACACCTCTTTTTTGTTTTTTAAGACGGCATCTTGTGCTGTCACCCANGCTG

Sequence 740

CCGCGGTGGCGGCCGCGGCCGCGGGCAGGTACCTATATAAAAATTGATTTAGCTTCTACACTCA
AGTAATTATAAACAGGTTTNTCTTTTGGGACATTTGACAGTTATGTGAAAGGTGAGTCTT
CGTTGTGTAGTATTGTCTGTTACACTGCAGGTGTCTAGAATTGCTGATAGTGTCTCCCT
CTAAAGTAATGTCACCCAACCACTTGTAATTGACGATAATAAGACAGGAAATCAAGAAC
CAATATAAATAAGCAAACATTTGAAAATAAGAGCTAAAAATCAAAAATAATCTCTCTTTT
TGCTGATAATACTTTATACCTAAATAACCTAAGATTTTTTTTTTTTTTTTGGAGACAGAG
TCTTGGCTCTGTCAACCAGGCTGGAGTGCAGTGGTGCAATCCCGGCTCACTGGAACCTCC
GCCTCCTGGGTTCAAGCGATTCTCCTGCCTCAGCCTCCTGAGAAGCTGGGATTACAGGCA
TGCCACCGTGCCTGGCTATT

Sequence 741

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTACAGTATAAATCATGCT
CCTGCTGTCTAGAGCTTACCACCAACGAGGGCTTCAGATAAGATCAGCAACTGCCCTAG
AGTGTGGAACCTCTATGACAAGGTGAGCCTGGGGTGTGATGGAAACACGGCGTGATGGT
TACCAAGCCACGCTTCCAGGGAAAGGGGTCCGTGCGGGAAAAACTTCAGAGAGGAAATGA
CATGTCAGTCAATAACCTGAAAGAACTGGNTGAGAGTTAAGCANCAGGGAACAAGGGCAC
AGTNNTCCACACAGCTTTTTGAAAGATCATGTTGNTTATAGTGCAAAAAAATACTGAAT
ATGGGAAACAATTTGTTATTATTTTTAGGAGTNTTGCTTTGTCCCCCAGGCTGGAGTGC
A

Sequence 742

ACTACTATTGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTGGGGGGAAAA
AGAGTTACAATTTGCCATAAAGAATGGAGAGAACAGAAATGTANCTTTTATGCTGAAAA
ACAAAATGCAAGGGCAATCCAGTTTCTAATTCCTGTGCCAAAGCTGCTGTTCTTGATGAC
CTCGGTCAAATCATTTAAATCTCTCAATTTGTTCAATATAAAAGTGCTATTAACCTGCAG
TTCCTTCAAATACTATCCAATCAATGTTGGCTACTTGATTTTCA

Sequence 743

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTATTCACAGGGTATGCATAAA

TABLE 1

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CCAAATATACAAGAATTTAATGACAGCATTATTTGCAAACAGTGAAAGATTCTGAGCAAT
CAAAAGGTTCACTACTACAGGCATAGGTCTATAAATTACTACTGTATGGAATACTATGCA
GCCATTAATAAATGAGGAAGAGGGAGAGTGCCCTGTATGCACTGACATGGAAAGGTTTC
AGTATATGGTAAAAAGCAGCTCATCTTAGAACAGATTTTATAGTATGACCCCACTTGTGT
GGAAATATTTTGTGATGTGCCACTCAGTGTATACGTATTCATGAGTGCATATACAAGTGT
GTGAGAAGCAATGTAAGTAACTGTTTCACAAGGACCCCCCTTTAAGAAGGCAGAGGGGA
TCGGGGGATATAGAGTGAAGGGATGATTTTTGCTTTTTCTCTA

Sequence 744

CCGCGGTGGCGGCCGAGGTACGCGGGAGGAAAGGGCTGTGTTTATGGGAAGCCAGTAACA
CTGTGGCCTACTATCTCTCCGTGGTGCCATCTACATTTTTGGGACTCGGGAATTATGAG
GTAGAGGTGGAGGCGGAGCCGGATGTNAGAGGTCTGAAATAGTCACCATGGGGGAAAT
GATCCGCTGCTGTTGAAGCCCCCTTCTCATTCCCGATCGCTTTTGGCCTTGATGATT
GAAA

Sequence 745

CCGGGCAGGTACACAGTAAGTGAAGGGCCAAGACTGACGGCTGATAGGACAGGGGTGACC
AGNGGTGGGAGGGTAGTGGGAGCAGTCCATCCTGGAATCTGGCATTCAAGGGGCGCATT
GTCTGTGGGAGGATTTAAAAATAATAAAACCAACTAAAGGCAGTCTGCTTTTTATGGTCA
CCAGGCCGCCAGCAATTCTAAATTTCAAGTATAAAATATTCCTCCTCACTGGACACGAGA
AGCTGGCTTTCTCCTTATCCCCAGTACCTTNGGCCCGCTTCTAGAACTAGGTGGGATC
CCCCCGGGGCTGCAGGGAATTTCCGATATTCAAAGCCTTATCCGAATACCGTCTGACCC
TTTNGANGGGGGG

Sequence 746

CGGTAATACTNGTTATCCACAGCAATCAGGGGGGATTAATCGCAGCNAAAGAACATTGTT
NAGCAAAAAGGGCCAGTCAACAAGGGCCAGGAAGTCTGTAATAAAGGCCGCGTTGCTN
GGNCGTTTTNTCCATAAGGGCTTCCGCCCCCCTTGGACGAGGCNTACCAAAAAATTC
GACCGCTCAAAGTCANGAAGGTGGCGGAAACNCCGACAGGGACCTATNAAAGGATACCA
GGCGGTTTTCCCCCTTGGGAAGGCTCCCTNNTTGCCGCTCTCCTGTTCCNGACCCTTGC
TCGCTTACCGGATACCTGTCCCGCCTTTTCTCCCTTTCCG

Sequence 747

CCGCGGNGGCGGCCGAGGTACATCTTTGGTGACTTTTCATTACATTTTCATGGATAATTT
GGGGAGGTGGCCTGCCANCCCTGAAGCCCTACATCCCATAACACTCTGTGCACATCCA
GTGCCCTGCTCCACCATGGCAGTGCCCGCAAGGGGGTCCCAGATGAGAAGAAGCTGGCTA
AAGGGCCCTTGTCCTCTCAGACTCCTTCAGCGGGCTGGAGTCCCTCCCTCGCTCGATTT
CGCCCGAGAGCGTTAGGGGTTTCTAAATGCAGGCGCCTTTGTGTTGTAACGAAACTTTTA
GTTTAAGGGAAAATCTCTTTAAGCCACTGATTGTTCTGACTTGCTGAGTTTACTCAGCA
GCCTTATGCTGGCTCTGCCACTGCACAATAAAACCAAAGCANGACAGTTGCAGNTNAAGC
AAGGGGGAACATGTTTTGCATTT

Sequence 748

GCCCCGGCATGGTACCTGTGTGGAAAAGAAATGCTTGCAAAGCTTGTCACCCTCACGAGAA
TTCCTGTGACAGACATTTGCCTTTGACAGTAAAAACAGATATTAAGTGAAAGGAGAAGA
AACCGAAGAGCATCAGAGGGGACGACTGGGTTACTTAACTGTTGGGGAGCAATCTGAGGA
GTTGGTTACCAGAGAAACTGGCGATGGCGATCCCGTGAGCAACATCTCTCAGACCCATTT
TAAATGCCGGGGGATACTTAATCATGCTGAAAAACAGCAGAGCCCTTGAGGTTTTTGA
CTACATGTTGCAGAAAGAAAGAAAGNAATTTNTACCTTNCCNAAAAATAAAAAATATNNA
NNNNGGTACCTCGGGCCCGGTTTTNAAGTGTGGGATTNCCCCCGGGCTTGAAGGAATTC
GNTNTTCAAAGCCTTNTTCGATCCCCGTCCNANCCTCNANGGGGGGGGGC

Sequence 749

AGGTACTTTTTTTTTTTTTTTTTTTTGGNCTAACTGNNNGGAGTATTTCTTTACCCAA
GATAAGTAAAAGCTACAACCTTTAGTATAAATATGNGTCCAAGTGCCTNATAACTGCTAA
CCACAGGGATCCTGAGCTCTNATAGCTTAAACACACAGNGTNNATTTTACTGGTCTACTT
CTCCTGNAGACCTAAAAGGGCCTATAGCCTCAGTAGTTGACAAAACAACATATTAATTAAT

TABLE 1
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CCTCACTGATCACTAACATAACCTAAAATCCCTGCTTTTGACATTAGCATGGNANACATC
CTTAGCAGGCCTAAATAGAATGGCCTTATAAGTGGATCCAAAGGGC

Sequence 750

AGGTACATCACCTGCTGAGGGACATCCAGGACAAGGTCACCACACTCTACAAAGGCAGT
CAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGACGATGGACTCCGTGTTG
GTCAGTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCAGCCTGGTGGAGCAAGTCTTT
CTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCCACCTACCAGTTGGTGGAC
ATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACCAACAAGCAGCTCCAGCACCCAG
CACTTCTACCTGAATTCACCATCACCAACCTACCATATCCCAGGACAAAGCCCAGCCA
GGCACCAACCAATTA

Sequence 751

GTGTCCGGAATCCTACCCGGTGTGNNGACAGTGCCTGATAGTTTCTTCTGCCTTTCTATC
CCAAAACGATTGGTCAGTTTACCCAAGTTTGCAATGCAGTTTANAATCTCCCAGGAACAT
CTCTTCTAGTAGTTGCCTTAGCCATCTTGTAGTTGATTTGACTTTTTTTTTTTTGTCTNN
CAGAAAGCTCTATGCTTCATATGGACTTGCATACCAATTTTTGTTTCATCTGTTGGTCAT
GATGGTTAGCAGAGCCTGACCTCCTGTTACAATAGAATGATCGGTTCTGGGCTACAGAC
TTGAGTCTGTTTTTTTGTTTTTAAACCTTCCCATGNGGCAATTTGCCATATGCAAAAC
T

Sequence 752

CCGGGCAGGTACGCGGGTGAAAATGGAATAGTTTTCTAATTACAGAAAGAAAAGAAGTTG
AAGTGGGTTTTCGCCATGTTGAGCAGGCTGGTCTCGAACTCCTGACCTCAGGTGATCAGCT
CGCCTCAGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACCACGCCTGGCCAAAAAT
CTTATAAATAATCCCCTTCTAATTTGCGCCAGCTTAATCACACACCAAATTCCTTTCATG
AGATTAATCTTCCACAACCTTCTACACTTCCTTAAATCTTTGATTTTGTCTATACTTCTT
TTTTATATTAGCAATCTACTTTAGGACAGAAATTTACTTTCTTTCTCTTCTTGATTTTGA
CCAAAGTCCTCTCTTAT

Sequence 753

TAGTTTTCTAATTACAGAAAGAAAAGAAGTTGAAGTGGGTTTTCGCCATGTTGAGCAGGCT
GGTCTCGAACTCCTGACCTCAGGTGATCAGCTCGCCTCAGCCTCCCAAAGTGCTGGGATT
ACAGGCATGAGCCACCACGCCTGGCCAAAAATCTTATAAATAATCCCCTTCTAATTTGCG
CCAGCTTAATCACACACCAAATTCCTTTCATGAGATTAATCTTCCACAACCTTCTACACTT
CCTTAAATCTTTGATTTTGTCTATACTTCTTTTTTATATTAGCAATCTACTTTAGGAC
AGAAATTTACTTTCTTTCTCTTCTTGATTTTGACCAAAG

Sequence 754

CCGGGCAGGTACCTATATGATGTTGGCCATGCTCACTCACTCCTCCAACCCTCAGTTTAC
ACATCTGCAAAATGAGATACTTCTTTTCCAGTGTTGCTGTGGACATTAGCAGGCACACAC
ATTTGGTGCTTGACAAATGAGGTCCTAAGAGGTGGGTCCCTCTCATCTTACGTGAGGAA
ACTGAAGCAGATTAGAAATGACCCAAGGAAACCACTCCGAGTTCAGTCTGGAGCCCACTC
CCCTAGGTTTTAATCATCCCCCACTCAGTCCCTATCTGCTGAGGTTCTGGATCCAGAC
GGTCTTACCAAGGAACGTCTGTCTCACCACATGGATGGTTTTCTGGCAGAGGTGTG
CCCTGTGAGGGGGTCA

Sequence 755

GCCGAGGTACANACAAGGGGGCNACTGNCATGGGGGNGGNNTCTGGTCTTGATGTCNGTT
TGGAATTTTCTAAGTCAGGGTGGGGTGGGGGGACTGTGCACGGGTCTGTGCAGACTGGA
ACCCATCTCCCCCTCGGTCTGCAAGTTAAACAATTGGGTTGTCTTCTCAGCATCTGCC
AATGTCTCTTANTCAATCTTGGATCAAAAGGGCGTTGGAGGAGGAGGCTGGGAGGGAAAT
CCAGACAGTTCTCCGCCTCTGACATCAGGTCCAGCTGTTAGCATCGTGCTGTGGGTCCCT
GAACAAGAAGCAAAGTCAGGACT

Sequence 756

AGGTACCGCTGTGTCCGGGTGGGTGGNGNGAATGCCGTGCTCCAGGTGTTACAGCTGCT
TCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGCCTGTGCC

TABLE 1
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CAACTGGGTTTCCCAAGCTATGTAAGTTCAGATAACCTCAGAGTGAGCTCGCTGGAGGGG
CAGTTCCGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTGACTGCA
TTACACCACTCAGTATATGTGAGGGAGGGATGTGCCTCTGGCCACGTGGTTACCTTGCAG
TGCACAGCCTGTGGTCATAGAAGGGGCTACAGCTCACGCATCGTGGGTGGAAACATGT

Sequence 757

AGGTACCTCTGGATATGTTACACTGAGANAGATACTTCATCACTTACATGATATTGCTCC
CCCACAAATTTTATAACCTGAATCTAGTTATAAGGAAATACTATGCAACCCAAATTGAGG
GACATTCTGCAAAACAACTACCTGTAATCTTTTTTTTTTTTTTTTTTGGAGACGGAGTCTCA
CTCTGTCTGTCAGGCTGGAGTGCAGTGGCGCGATCTCAGCTCACTGCAACTTCTGCCCCCG
GGGTGCGAGCGATTCTTCTGCCTCAGCCTCCTGAGTAGCTGGGACTACAGGCACACGCCA
CCACGCCCAGCTAATTTTGTGGGGTTTACCATGTTGGCCAGGATGGTCTCCATCTCT
TGACC

Sequence 758

CCGGGCAGGTACTATGGTCCCCGGCAACCTCCCCTTCTCCTGGGAATGCTCAAATGGGA
AGGCAGCATGAAACGGTGAACAGGCAATCACTGGACAAAGTCACAAGAACTGGGCTTTAG
AAATGGTTTTACCATTAGCAGTTGTGACACCTCAGAAGTGGCAACTCTGGATCTNAATAC
CCTACCCTTNACCCTAAGNANAGGTACCTCCNCTNATTTTNNCGGGGGGAAACNTTCTNNG
GAANTTNCCCTTTCCNAAAAGGGGGGGGGGGCTCTTTTTTTTTTTTTTGGGGGGGGGG
CCCCNNCNCNCCCCCCCCNTTTTTTTTTNTNAAAGGGGGNTTNAANANANATTTCTNTNC
TCNTNTTTTTNTNANGNNAAAAANTCNGGTNGNGNGTTTTTTTTTTANAAAAA

Sequence 759

GGCGGCCGAGGTACAAAGAAAGGACTTGATAGCTATTACCTTGCTGCTATGTTTGTTNCT
TNGNCTCACCAATCATNTTNTGTATACCTAGCACTGCACCAGGCGCTGAGGTTAGAGAA
ATAACTAAAAGTGGGCCCTTACCCCTGATGGCAGGATAGGCAAGGTTGGCACCATCGTC
ACAGCAGGACCCTCATCGATGCCTTGGTGTGTGCCTGGCATGGNGTTTGCAGCAGTTTAT
CACATNNAATCCTTACAGC

Sequence 760

AGGTACTCAGGCCTTACTGGGATTTCTTTAAGACCTCTGGGAGGAAGTGTGAGTAGCTG
GGCAGGCCTTCTTGCCAAGCATTCCTCCCTGGGTTGTGGCGGGGGCTCCCGGCCTGCTGT
GTGGCAGCTGCAGGCTCCTGGGGACCTGAAGGAAAAGCTTAACCGTTCTCCCTTCCCTTG
CTTGGCACTTAGAGCACTAGTTCCATTCCAGACATACCGATTATCTTGCCTACGTGGCAT
AGAGGCCTAGGAGCCTCCCTGGGAGGAAGAGGCAGGCCAAGGTCTTGCCTGGCTGCTTTT
AGGGGGAAAGATGTAGGGAGGAAGCTGCCTTATGCTTGGATCTGCAACCTTTGCCTGGAC
CTGCGGAGCCTATTTTGGCCAGGGGGAGGGAGACAGAAATTANACCCNANGTATTNAGGT
AATCCTTTTNTTGCCTTTGAACATTGCNCGGGNGTACTTTGNAAAAA

Sequence 761

CTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGTGAAAAAT
GGAATAGTTTTCTAATTACAGAAAGAAAAGAAGTTGGAGNGGGTTTCGCCATGTTGAGCA
GGCTGGTCTCGAACTCCTGACCTCAGGTGATCAGCTCGCCTCAGCCTCCCAAAGTGCTGG
GATTACAGGCATGAGCCACCACGCCTGGCCAAAAATCTTATAAATAATCCCCTTCTAATT
TCGGCCAGCTTAATCACACACCAAATTCCTTTTATGAGATTAACTTCCACAACCTTCTAC
ACTTCCTTAAATCTTTGATTTTGTCTATACTTCTTTTTTTATATTAGCAATCTACTTTA
GGACAGAAATTTACTTTTCTTCTCTTGTATTTGACCAAAGTCCTCTCTTATGCAAAAT
GAAAAATTAATCTTTTTCAACTTTCTTTACCAAATATACATCCTCATAACTTTTTTCC
ATCTCTCCTACTTACTGG

Sequence 762

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGTGAAAAAT
GGAATAGTTTTCTAATTACAGAAAGAAAAGAAGGGGGNGTGGGNTTNTGCCATGTTGAGC
ANGCTGGNCTCGAACTCCTGACCTCAGGNGATCAGCTCGCCTNAGCCTCCNAAAGTGCTG
GGATTACAGGCATGAGCCACCACGCCTGGCCAAAAATNTTATNAATAATCCCCTTCTAAT

TABLE 1
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TNCGGNCANCTTAATCACACACCAAATTCCTTTTCATGAGATTAACTNNCACAANTNCTA
CACTTNCTTAAATNTTTGATNNTGNCCTATACTTNTTTTTTATATTNGCAATCTACTTT
AGGACAGAAATTTACTTTCTTTCTTTGNTTTTGACCAANGTNCTNTCTTNTGCAAAA
TGNANAATNNCTNTTTTTCAACTTTCTTTACCAAAA

Sequence 763

TTAGGGCGATTGNAGCTCCCCGCGGTGGCGGCCGAGGTACATGTAATGCTCCTGAACTGT
ATGCTNGACACGGCTGTCTACNTAGGTTTTGTTCTGTGTATTTTATGACTATTTTTTAA
AAAGTAAACAAAAAGAATTAGCTGGAATACCAGCACAGGCAAACCCCTGGAGACAGAA
AGCAGGTGAGTGGTTGCTGGGGCTTGAGCAGGAGGAAGGGCGAGGGACTGCAGAATGGCC
ATGGGCTTTGCCCTTAGCATGATGAGAATGTTCTGGAATTAGACAGTGGTAACGCTTGT
TCAACACTGCCAGTGTAGTTAATGTCACCTGAATTATACACTTTAAATGGCTAACATGACC
AATTTTATGTTATATATATTTTACTACCACAAAAAACTAGCTGGCACCTAAAAACATTC
CATT

Sequence 764

CCGCGGTGGCGGCCGAGGTACTTGGATGGGTTTTGTGTGTATGTTTGTGTGTGCACTNGC
GTCCACCCTGTTGGGCTTAGTGAACTTTTGATTCAGTGATTTAAAGTTTCTCATCAGAT
TTGAAAAATTCTCAATTACTTTTTCTTTAAATATTTCTCTTGCCCTTCCCCTCTCTCTT
CTTCCAGGATTCCAATTTTCATCGATGTT

Sequence 765

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGTTCAAGCG
ATTCTCATGCCTCAGCCTCCCAAGTAGCTGGGACTAAAGGTATCCACCACCACGCCTGGC
TAATTTTTGTATTTTAGTAGAGATGGGGTTTACCATGTTGATCAGGCTGGTCTCGAAC
TCCGGCCTCAAGTGATCTGCTCGCCTTGGCCTCCCAAAAGTGCTGGGATTACAGGCATGA
GCAGCTGTGCCAGCTGGATAATTATTTAATAAATTGGGGAGCATAGGAAGCATAGTATT
TGTGAAGTGGGTAGGCAGGTGTGATGGGGGTAGGTGATGTTACATTTGGGGCATTTTGAA
GTTGGTGGTTCTTCTGAGTTGAGCAGTCAGTCACTCTTCATTTGCTGCACCTTTATCTCA
TTTTAGCCAACAGACATTGAATACCTACCAAGTCTTAGGTATTTGCA

Sequence 766

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACAAGAAA
GAAAACAAATACCAAGTATTTACAGATCCAGAGAAAGTTTACAAGAATGGGAGGATGCCA
GTTCCAATGCTTTGTAAAGTCAAAAATAGCCACATTGCAAAACAAACAAAAAAACGAG
AACGTTCCCGAGTGTGCCTCCAAACATAAAGGAGAAAATCATACAGAAAAACCTCATGT
AAGGGTTGGAACCTTGAGCAACCAGCTATCCAAATACAGAGGGGAATCCTCGCTTAGCTAG
GGCATGGCCTGAG

Sequence 767

AGGTACACACAGTGATTTGGGGTCCTTTTTCTTAAACAGCTTCTTTATCAGGACTTTGG
AATTCTGGGTGAGATAGAAACACTGAAAACAGGGCGGAAGTTTTTTCTTCTGGCTTCTTA
GTCCATGGAGGGCTCAGCGTGGAGAGGATATGCCGTGGCATTCTCCCTGGGAGACCACAC
ATGTTCCCGACAGCTCAGACCCAGACCCGCACATGCTTCTTGACAGTTNAAACCCCAA
CCGNAGGNGCTCCCGACAGNTNAAACCCCANACCCCGCGTACCTGCCCCG

Sequence 768

CCGCGGTGGCGGCCGAGGTACTTAATAATTCATAATTTAGCCATGATAGTATCTAAGCTC
ACTTTCAGAATTATTGCATACATGCCTTAGGGAAGAACCTATCCACTAATGCTTTTAATA
ACTTACATAGATTGTGTTGCGGCAAGTCAAGTTTTAATATAGAGGAAAGGGTTTATCTTA
TCATAGTAAAATAGTAGTGATGTGTTCAATTTTACTATTTGCATGGTATATTATCAAGG
CTGTAAAAGCTTGAATTTGCCCTTTCCACATCTTCATTTCAAATTAATTTTTGTGAGGAC
CCAGAGAAGTGGGTAGAACCCAAATGCCCATGNNGGT

Sequence 769

GGCANGGTACAAATTCAGGGGAGGATGGAGCAGCTGCAAGCCTGGCTGGCATCCCATGCC
AACAAAGGTGACCCAGTAGATAAGTGACAAGGTGACTGAGCTGCCTGGTGCTCTTGATAG
AATTTTCAAGTGTTAGAAAAATGTCTCCATGCCTTGCAATTTGTCTCTTGTTGGCCAAGCC

TABLE 1
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TAAGTCAGATGGAAATGCAGAAATCACCCGCTCTTCTGCGTCGCTCACGCTGGGAGCTGTA
GACCGGAGCTTGTCTAATTNGGCNATTTGGGTTCTNTCCCCCGGGNNCNTN

Sequence 770

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTTTT
TTTTTTTTTTTGGAGNGGAGTCTCACTCTGTTGACCAGGCTGGAGTGCAGTGGCACAAT
CTTGGCTCACTGCAACCTCTGCCTCCCGGGTTCAAACGGGTCTCCTGCCTCAGCCTCCCA
AGTAGCTGGGACTACAGGCGCATGGTGCCACTCCCGGCTAGTATTTGTATTTAGTAGA
GACGGGGGTTTTACTGTGTTGTCCAGGCTGGACTCGAACTCCTGAGCTNAGGCAATCCAC
CAGCCTCAGCCTCCCAAAGTGCTGGCATTACAGGCATGAGCCACCGTGCCTGGCCTCTTT
CATATTTTTTTACACTTTTCATTTCTTCTTATTTAAGTGNGCTGGATAGGGGCTCCAG
AACAGAATTCAATAGAAAGTTGTGACAGTAGGAACCCTTATCTTGGTCCCTGATTTTAAA
GGAGGGTTNAAAAAAAAACCCCCCAA

Sequence 771

ACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTTTT
TTTTTTTTTTTGGAGAGAGGGGGTTTCACTATGTTGCCTAGGCTGGTCTTGAACCTCCTGGC
CTCAAGAGATCCTCTTGCTCATCCTTCCAAAGTGCTGGGATTACAAGCGGGAGCCACTG
TGCTGGCCTAGAAGATCTGTTTTCTTTCTCTGAATAATTCTTGACACTGTCTCTCC
CTCCATCTCTTTCTGTTTCTTTGTCATTTTCCAGCTATCCTTTTTCTTGNCTTGTC
CTCTTCTCCCCTCCATCCTAAAACCTTTGATCACAAGCTAGTTTCTTTCCACATCATCT
GCTCCCCTCTACTAAACGCTATTTGCCCCCACCTGCTTCAAGCTGNGCTTGCTCTGA
GCCCCCTCTTTACCCACGGCCCAA

Sequence 772

NCTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTCATGCTAGACAA
CCTTATGACTTGAAAACAAAATAATATTTGAAATGGAAATGGCCTCAGTTCCACCCCTGG
TGCCACATAGCATAGTGAACCTGCCCTGCAGCATTGCCCATGAGTGCTAAGATCCTGT
GCCCATTTGCATGTCTTCTTAAACAAAAGACCGCCTTAGTAAGAAATTAGTAAACCAGG
GAGATAATCAACTTATCCCCAAAAGATTTAAGCCTCTCATTTTGTAAACCTTCATTGG
GGATTTTAAATAGAAAAGTAGGGCCCGGCGAGGTGGCACATGCCTGTAATTCCAGTACCT
GCCCGGCCGCTCTAGAAGTAG

Sequence 773

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATCACCTGCTGAGGG
ACATCCAGGACAAGGTCACCACACTCTACAAAGGCAGTCAACTACATGACACATTTTCGCT
TCTGCCTGGTCACCAACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCT
CCTCCAATTTGGACCCAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCTGAATGCCT
CATTCATTGGCTGGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGT
CATCAGTTTATCAACCAACAAGCAG

Sequence 774

AGGTACGCGGGGAGTGAACGCTCTCGGAGAACCCTTTCCACGAACGTCCACTTCAAAAG
AACGCGACGGAGCATTAAGTCTGCCACTGACCCCTGGCCTGCCTTCGCCTCCTCCTTC
CTCCTCTACCTCCTCCAGGCGCATTACCGCCTCTCTGCCTTCGGCCAGCAGTTTCTATT
TAATCTCACCGCCAATGCCGGATTTATCGCTCCACTGTTCACTGTCAACCTCCTCGGGAC
GCCCGGGGTGAATCANACCAAGTTTTATTNCGAAGAGGAAGCGGAAGTCAAGCACTGTTT
CTACAAAGGCTATGTCAATACCAACTCCGAGCACACGGCCGCTCTAGAAGTAGTG

Sequence 775

CCGCGGTGGCGGCCGCCGGGCAGGTACACTACTGGCATAAGAGTAAATTGGTGAGAACT
TTCTGGAGGGGTAGTTTGGCAATGTGTTTCCAAAAATCTAAAAATTATTTGCCTCTA
ATCCAGCAATTATACCTCTAGAAATTAATACTAAGGAAAATCTTAAGAATATACCGTAAA
ACTTTAGTTGTAAAGAAATTTTTTGTGGCGCATGGTGGCTCACACCTGTAATCCAG
ACTTTGGGAGACCAAGGTGGGCGGATCTCCTGACCTCATGATCCACCCGCTCGACCTCC
CAAAGTGCTGGGATTACAGGCGTGAGCAAATTTTAAATAAGAAGAAACAGTCAACAGCAT
CAGACATAGTAGGTATGTCCAACACCATAATGGCTGAAAAGTGCCCCCTAGTCTGGCAAT

TABLE 1
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TAGTAGGTCATTGGTTTATTAATAACCGGCATGTTAAAGTTG

Sequence 776

CCGCGGTGGCGGCCGGCAGGTACAAATCATACCTCCCAAGGTATTGCTCCATTGTGTTTT
TGTGCATTTGGTTTGGATTTTATGGGGAATTGAAGACAAGTGGATCATAAAGTGCAAAA
TAAATGCTCTAGAAATGACAGATGGGGCACAATTTCCAAGAAAATTCATCTAGACAGTG
GCAACACTGAGAAAAAAGAAACATTCAAGAAG

Sequence 777

GAATTGGAGCTCNC CGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTTTTTTTTTTTTT
TGCTAGAGATGGGGTTCACCATGTTGGCCAGGCTGGTCTCGAACTCCTGGCCACAAGTGA
TCCACCTGTCTCAGCCCCCCCCAAAGTGCTGGGATTACAGGTGTGAGCCACCACTCCTGGC
CCATGTTTAGGATTTATACCAATATTATTAACCTAGAAATAAGTTTCTAATAAATTATTC
CACCCGAACCTAGGGTAACTGAATTTAATGCTGATGTATTAAGCAGGTTCTTCCTGGGG
TCTTTTGATTCTCAAGGGATCCTTCACTGNGGGTGGACTTCAAATTAATAGGAAGCAGGA
AGGAGCCACCTGCACTGTTTTCTTGACTGGGGATGACACCNAAACCTT

Sequence 778

CCGCGGTGGCGGCCGAGGTACTATGAGAATTTCAAACAAAGAATGAAGCCATAAAACAAA
AAGACTGAATATTTGGCTCTGCCTGGCTCCCAGGCTTTCTACTATTCTTGACTTGGCC
TCAACAAAATCTAAAGTGACTTGTTATTTGTGGGTGAGCTTTGTCCCATCCTTACCAGTC
ATGGCTTTAGACAAAAGACTCAGCACCCTCACCTNTGGGACAGTNTGACTGNGGTCTG
AGNCCCCTGCTTANATATTAGGCTTAAGCTCAGTT

Sequence 779

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTATGAGAATTTCA
AACAAAGAATGAAGCCATAAAACAAAAAGACTGAATATTTGGCTCTGCCTGGCTCCCAGG
CTTTCTACTATTCTTGACTTGGCCTCAACAAAATCTAAAGTGACTTGTTATTTGTGGG
TCAGCTTTGTCCCATCCTTACCAGTCATGGCTTTAGACAAAAGACTCAGCACCCTCACC
CTCTGGGACAGTCTGACTGTGGTCTGAGGCCCTTGCTTAGATATTAGGCTCAGCTCAG
TTCC

Sequence 780

TNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACACACAGTC
AGCATGCGCTGTAGCAATGTGCTTTGCAGCTGGAACCTCTATCAAGCATCCTAGGCAAGG
CATGCACCCAGCGCCAGAGAGAATCAGGAAGGGGAAGGTGCCCTGAACCTCAGACAAGA
ACCCCTTCAGAAACCACCACCAAGCCATCACTGTGTTTCCACCCTCAGACCTGTGTCT
CTTAGCTTCTTGGTAGAAGGAAAGAAGAGGAGCTTGGGTGGGGCAG

Sequence 781

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCACGGTACCATGGACAT
GCACCCCGGCCACAGAGAGGCGCACAACCTTNTACAGAACACCCTTCCACCTGGTCTTCCA
CAGCTGCATCAGATTCCTGGACTGTCACAGACATGACTTCAAACCTGAAAGTTGCAAGAT
CTCCTGGAACAATTTCCACAATGCATACAACCTTATTCTTAGCCTCAAGCACTGAATTAG
ACTCCATGTCTACTCCCCATGGCCGTATAACTGTCATTGGAACCAGCCTGGNCACTCCAT
CCTNTGGANNNTTAAACNTTNAAAAAANNNAANNCNNCCCCCTNGGCNTTTTTAAAAANN
GGNNCCCCCGGNNNGGAAATTTTTTTTAAANATTTTTTTCCCCCCCCCCCCNGGG
GGGGGGGGCCCCCCCCCCCCCTTTTTT

Sequence 782

NAATTGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTCCCTGAGCAGTCGAAGTGG
ATGCCAGACCAATGGCCAGTGCTAATATCAATGCAATGATCCCAATGACGATGATTGGA
AAAAACTTCAATGGCAGCAGTGACAGGATCTGTGCAGCAACAGCATCTGCATCTGGTGCA
ACAGGACTTATTTTCAAATCATCAAGGCCAAAAAGCGATCGGAATGAGAAGGGGGCTTCA
ACAGCAGGCGGATCATTTTCCCCCATGGTGACTATTTCAGGAC

Sequence 783

CNATTGAGCTCCCCGCGGTGGCGGCCGAGGNCTGATGTCCTACAGTCCTCTACCTGATCT
ACGTTCACTGGAAAGTGNGAGTCTCAGCAGGAAGCACCTTGCTCTCGTGTCCGGCTAAT

TABLE 1
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TCGAGTGCTTTACGTAAGTAGAGGAATTGCTGACTTTTGGGACATTTCTGGTCTTGCCAA
AGTTCACCTTG TAGTAAAGCCCCCAAAGATACTTCCCAAATAGATGCTCTCTTGAAAATA
ACTCAG

Sequence 784

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATGTCGGCCTATTTTA
TATTCTGTTTAGTGCTTTCAACCCCGAAATCCACCTTCTAACATTAATATTGATATCCAT
CCTCTCTCTCCTCCAACCTCTCTCTCTCTTGCACTTTACTTTTAGATTTTCATTACTTTCT
TTTTATTCTGATTCTTGTAATAGTATAAACTAGATTCTTTTATTTTATTTACTTTTAA
AATTTATGATTGACACATAATAATTGTATATATTTATGGGGCACAACTGATGTTTCGGT
GCATGTATACATAGTATAATGATCAAATTAGGGTAGTTACCATATCCATTACTTTAAACA
TTTATCATTTTCTTTGTGGTAACAACATTA AAAATCTCATCTAGAATGGCGTGAACCTGG
AGGCAGAGCTTGCAGTGAGACGAGATGGCGCCACTGCCTCCAGACTGGGCGGACGAGCG
AGACCTCCNTCTCAAAAAAAAAAAAAAGG

Sequence 785

GCTCCCCGCGGTGGCGGCCGCGCAGGTACGAAATGAGAGAAATGGTTTAGTAAACGTATAA
GACATCAACATAGNAAAGTATTCTATAGGNNTATGTGTTGGAATTACAAAGATGAAGAAA
AGATACAGGCAAGTATTTGATATACTNAATTA AAAATAGCAAGATGTAGAGTAGNCATGT
ATACAGTGATAGCAAGAACATGGATCCTTAAGGACAAAACCTGAAACATAATGCAAAAAA
GAAAAATATGCAAAATTATTTTCGTATGATGTAAGTTGTAAATAT

Sequence 786

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGNGTACNCGGGCCTATTTCTGAA
TAACTCAGNGGCTTAAATATATCCCAAAGTAGNGGTATCACAGGGTTTCCTGATGAGG
ATAAATGGGCCTGAAGTGCTTATGGGCACCCACTATGTATCATGGNAAAACCTGCACGTG
TGTGTGTGTGTTGAGAGAGAGAGAAAAANAATAGANAAGTTGGTGAGAAAAGGNGAGG
CTGTTTTTTGNNCCGAGGGNTGNTGGTTGGGCTTT

Sequence 787

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGNACACANTAAGTGAAGGGCC
AAGACTGACGGCTGATAGGACAGGGGTGACCAAGTGGTGGGGAGGGTAGTGGGAGCAGTCC
ATCCTGGAATCTGGCATTCAAGGGGCGCATTGTCTGTGGAGGATTTAAAAATAATAAAAC
CAACTAAAGGCAGTCTGCTTTTTATGGTCACCAGGCGCCAGCAATTCTAAATTTAGTGA
TAAATATTCTCTCTCACTGGACACGAGAAGCTGGCTTNTCCTATTCCCAGTACCTGCC
CG

Sequence 788

GGNNGCGGCCCGCCCGGTTTTGGACGCGGGTNTNTGCCCTNACTTTTTTAGCGGAGCAGAG
GAAACATTCTAAGGAAATATGCGAGTAGAGCTCAGGAGAAAAGCAGGACTAGAGGCCCA
AGAATCACAGGCCAGAAGAAGAAGCTGTAGCCTCGGGAATGGAAGAGCTCTCTGAAGGGG
AAAGGGGAGAACAGGAATGTNCCAGGAGCCAAGGCTCATCTATAAGGGACTTNCACATTT
AGGATGTAGAAGAAGGAAGCAGAAGCAGGGGATGACCAGAAATGGCCCCAGAGATGAGAT
GAAAGTTAGGAGAGCGGNGAGCAAGCCTTTAGGTTTCACAAGGGAAGGAGGGAAAGTAGG
TGTTAGGTGCTGCCAAGATCAGGGAAAATAAGCAGAAGACCAGGCCATTTNANTTGCGNG
TGG

Sequence 789

CCGCGGTGGCGGCCGAGGTACCACAATCAACTCAATCACACATATTACAACAAAACCTT
TCATCTTTTTCTTAACCCACTGTAACACAAAGCAGAGAATACAGATTAGCTTTTTTATT
TGTCTGTTTGACTTCATCTCTTACATACCTCTATTTAGTATCTATGATATTTCTCTT
CTTATCTGTTCAATGACAGTCTTCCCTTTTAAATATTCTAAACTTGTCAAGCACAGCANTT
AAAAAAGTATTCTCATGTATATATTTATCTTTAGAGCATCGCATAAAGNCTGATACATA
GGAAGTTTTAGATGCATATTTACATTGGGTAGATGAATCCAGGGGAAAAG

Sequence 790

CCGCGGTGGCGGCCGCGGCCGCGGAGGTACTGCCCAAGAGAGACGTCTCTTACTGCCTCATT
AAGCATTTGGAGCTGTAAACACAAATCAAGGCAACCAGAAAGGGCATCTTGGCTTCAGG

TABLE 1

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CTGGGCATAACCATCCCATTTGCCACATAAAAGTCTAGTGGCTACTCTGCACCCTTTCTG
GGTAGAAGCAGAGTTAGTTTGGTCATGGGGGCCCTGTGGGACAGTGTTGCCAGACAGG
TACCTCGGCCGCTCTAGAACTAG

Sequence 791

AACCCACTATAGGGNTNATNGGAGCTCCCCGCGGTGGCGGCCGCCCTGGCAGGTACTGNC
TGTCTCAAATTTTTGGATACGCTGTCCCTCATGTACCTAGCTGCTGAGAGCTTTGTGAT
CCTAACAGGTGATGACTCAGACCGACACTGCATTGGTAGGAATCCACAAATAGGTGCCT
CAATGTGCCTAGATTGAAATATCAGCCTTTCCAGACTGACCTGATGGGTTGACTTCAGG
TGTGGTGTAAACACCTACATTTTAATGTAACATTTTCAGTGTAAATCAATGAGAACTATCA
TTCTGCTTTAATCACCATGAGTTCTGAAATAACAAAGGATTTGTCTGACATTCATTCTAA
GAAATTCATTCTTACCTGACTAAGAACTTTTAACTGGCACAATAATAAGAAATGACC
TGGNAAGTACCTCGGCCGCTCTAAACTAAGGTGGGATCCCC

Sequence 792

NGGCGAATTGGAGCTNCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGCAAATGTAA
GTTGGTAAAAGACATTGGACTCCAGCTATGTTCTTTAGAAAGAAGGTATTGGACTCTGGC
CATGTTCTTCAGAAAGACATGCCTGGCTTTTTACGATTTGATCAGTCTTCTTAGACCC
TGAAACCCACCATGAAATGGCTTCCCGAGACACAACCCGAGAGAGTTATGCTTTGTTTCT
CAGCTAAATATTTTGCAGATCTTAATTTCTGGGTGATTGCATCATTTTTTTTTTTTTT

T

Sequence 793

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAGTATACCTTTT
CATTTAAATCATTGAACAGTTCACAATGGCTGTTGTAAGTTTTTGCCTTGTTACTGAAA
CCATCATCTCTTGGTCTATTTCTATGGAGTTATTTTTCTAGTTATTGGCAGTTTGCTT
ATCTTTTATGTGTCTAATACTTTTAATTGAATGTAGAACATTATGGATCTTATATTTT
GAGAATCTGAATGTTTAAATTCCTTTGAAGAGTTTGTGTTTTCTTCTGGAGGCAGTTTA
CTTACTGGCTGTGAGCTCAGTCCTGTTGAGGCTGTTTNGCGACNNNCTGTGGCTTTGTCA
GGGTGGGGTGGTGGATCAGACATCTGGTCATCAAC

Sequence 794

ACNCCCGGCCAAAAGGGAGNNCACAGGGGGGGGCCAATATATAAGGGGGGCAAGGAGGGG
GGGNNGGGNAAAGANGNCAACCCCNCCNNGGGGNNGGGGGGGAGGGGNAANAAGA
AGNGGGGGGNGNCCANGCAACCNAAGGGACNAACCCAACANNNAAGCGGGGGAAGGGG
CACGANAGANANANANNANAGGNGANNCAAGAACCAANCAAGGGNNGGGGGGGAAGGGC
NNCAAANGGGNNNAANNGGCNCAGGNNACCNAANGGGGGGNNGGGCGNNAGAANGGG
GGNNGGGGNNANGGAAANNAANNCNGGANNNAACCAAGGGGAAGGGAGGGGGNNGGAAA
NCAAGGCCCCCGGGNCAAAACAAAAAGNNGGGGGGAAAAANACAANCNGGGNNNGGNCA
GGAGGGGAGGNNANNAGCCGCGCGNAAAAAAAAAAAAACAANCCAGGGGCAANGGGGNN
GGGGNNGGCNAANGCCNCCNNGGGGNAANCCCNANGGNGNACCCNNGGAGGGNNGGGNN
GGGGGGGCNCNGAAGGGAAAAANAACCCCAAGGGAAAAANCCANGGAANGGGNAANAAG
GGGGGNGGCAAGNNGGNANCCCGNAAAAANAAGGGGAAACNNGGGGANNGNCCAAAAAC
CCNNGG

Sequence 795

CCGCGGTGGCGGCCGAGTACTATCTCTTAGGAGAAGGCTGACTTGAAGGCTGTGAAAAA
CTAAGAAAACACCAACCATTCAACAGTATACTAGAATTCCTTTCAATGCATAATAGAAAC
AAGAAGGGATTAGAAAAGCATGTCATAATTTCCAGATAGCATAATTATTTACATTAAAGA
TCCAAGAGACTCAGACCTAGTAAAAAGATTTTGCCACATTGTGACATTTGAGATCACATT
AAAAAAAAAAGGAAAAATCAAGNGATACTAACATACCAATTAACATCATNAATTAGAA
AATTTATCCATCAGCNGTATTNNNNNGGGCTCAATGCNTTGAATGCCGCATTTCGGGAG
GC

Sequence 796

CCCCCCCCGAGTTTCAGCGAAAANCCCGGCCGAGGNACCNCNCCNTTACNCCAGGNTT
ANAAACNCCCNNGGTNTNGNCCAGGAGAGGCGGGGGANACCCGCGCCNGGCCAGCANGN

TABLE 1

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CCCCTNCTAAATNNNGNNGTNNAAAGGAANCNGGACCCCAAANNCNCGCCCCCACGAAAG
GAGCCTGGGAACCTACCAGGGCGTGAGCTCACCGNGCCCGGCGCTCTAGAACGAGAAGGA
ACCCCCGGGCTGCAGGAAAAACNATAACAAGCNAANCNAAACCCGACCACCCCAAGGGGG
GGGCCCCGGGACCCAGCTGTTTGGGCCCTCAANACNAGGGAAAAATTGCGCGCTAAGNGCN
CAANCANGGGCCAAAANGCTGGNTNCCCCGAGGGGAAAAAAGGACACTCCCGCGNCACA
AATTACCACNCAAAACATAACNGAAGCCGGNNAANCAATAAAANNGGGGAAAAANACCCC
NGGGGGTGGCCCTAAAAGGAGGGGGAGCCCCAACCAACAAAATAAATTGGGGG

Sequence 797

AGGTACTATCTCTTAGGAGAAGGCTGACTTGAAGGCTGTGAAAACTAAGAAAACACCAA
CCATTCAACAGTATACTAGAATTCCTTTCAATGCATAATAGAAACAAGAAGGGATTAGAA
AAGCATGTCTAATTTCCAGATAGCATAATTATTTACATTAAAGATCCAAGAGACTCAGA
CCTAGTAAAAGATTTTGGCCACATTGTGACATTTGAGATCACATTAAGAAAAAAGGAA
AAATCAAGTGATACTAACATCACCATTAAACATCATCAATTAGAAAATTTATCCATCAGC
CGGGTGTGGG

Sequence 798

GCGGCCGAGGTACAATTCAACAATTNNTGGTCCAGGATCATGAATGGGCCATTNNTAGTT
CTGTGTGTGCTTAAACACATTTTTTTGTGGGGTGCTGTGGATGTGTGGATGTAGCCAAA
AAAACCCCTATTGTGGGNTNGGTCTGGGGCAGAAAGTCTGGTGCCAGAGAGTGGGGTTCT
GGGGGTCTGTCTTCATAGTTTGGGGTAGCACTAAAATCCTGTGAGCCTTTCTGGGCCTTG
GTAACCTCCCCTGTAAGTTAGCTGTTAGATAATTGAGCTGGGTAGCATTTTATACCTGGA
TGATGTTCTAAAGTCCAGCCACANAAGGCCNNNGTCTGGCAGAGTGAGAATTNCCTTTGA
AGAACCTTNAAACTGNTNCCCNAGAGTGACACAGGGGNNCCTNNGGGGAAAANCNAAAAAG
NNNTTGGGAATTCNTNCAAAAGNAAGNCCCATTTTTTTTTGGCCNNNATTTNGGCCCNCG
NTAATNCCCNCCCCAAGNAAAAANNAAAAAANTNTTTTTTTTTTTTT

Sequence 799

CGGTGGCGGCCCGCCCGGGCTTGGTACCTCTGTACGGCTTCCCTTTGCTGGAAGGGGA
ATTTCCCAACCCCGGGTGAGGCAATGCCCGGCCCTGCTCCGTGGGCTGCACCTGCTGTCT
GTCAAGCCCCAATGAGATGAACCCTGTACGCGGGGGCCTGGGATCTCAAATGGCGGCC
CGTGCGGAAACAGCGTNTGGGAGCAGANATTGTTGCCTCTGAA

Sequence 800

GGGCGNTTTGGAGCTCCCNCGGTGGCGGCCGGGCAGGTAATCTGGAACNTGTAGCTT
CCTTTNGCACTGCAGCATGGGAAGCCAGAGTTGATGATTCATACACCAGCATTTACATTT
TTCAGCATGAAAGTGGTATGTTCTTCAACTCACACCCATTGGCCAGAACCAGTAACATG
ACTTCACCTAACTGCAAACTAGCTGGAGAATTGTGGGAGAGCTCATGG

Sequence 801

CCGCGGTGGCGGCCGAGGTACCATTTAGCACACAATTTCCATGTCCCAAAGCAACCCCC
ATAAACAGTGACTATTTTTATGCTGTTTTCTTTGCCCAACACTTTTATCATTTGATA
TGTTATATCTTGCTTTTTTTTTCTTTTTAATGGAGTCTCACTCTGTACCCAGGCTG
CAGTGCAGTGGCGGATCTTGGCTCACTGNAACCTCTGCCTCCTGGGTTCAAGCAATTCT
CCTGGGGGGTGGGAGGTTTGCAAGTGATCCAAGATTGCGGCTCTTCACTCCAGACTGGG
NGAAGAAGCAAACTCCATCTNAAAAAAAAAAAAAAAAAAGTACCTNCCCGGGCCGG
CCGCTCTANAAGTGGT

Sequence 802

CCGCGGTGGCGGCCGCGGCCGAGGACGCGGGATGGTGTCAACTTATGTCAGGACCCATG
GGCCCTCCCCATGCACACAGCACTCTTGAATCTCATCCTTTTCCATGGCTCTGGCTCAC
ACTTCCACAGCATTTACTCCTAAATATGCCCCCTGGGTTCAAGGGTGATTCTCGTGCCCTC
AGCCTCTCAGGTAAGTGGGATTACAGGCATGCACCACCATGCCTCGTATTTTTTTGTGT
GTGTGTTTAGTAGAGACGTGTTTCACTATGTTGTCCGGGCTGATCTCCAACCTCTGTAGT
CAAGTGATCTGCCCGCCTCAGCCTCCCAAAGTGCTGGGATTATAGACATGAGCCACCACA
CCTGATGTCTGATGCTTATTTATTATGTGACCTTAGCGAAGTGTTGGGTAGTCATTAGTGC
TGGTCTATCTCTATACCTTCCCCAGGCAAGGTAGGATTGCACTTCCCGTCCACT

TABLE 1

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Sequence 803

AACGACCGCCCGGGCAGGTAAGCCAGGACCTCAGTTAGCACTAAGCACTCTTACTAT
TGCCCCACCTGGCACAAAGCAAAGTGAAGATCTTAGTTGGGCCATCATGTGTCATCTGA
TTGTCTTAGAAGTTCTTTTTTCTAAGACAGAGTTTGTCTTTTGGCTCAGGCTGGAGT
CCAATGGCACAATCTCGGCTTACTGCAACCTCCGCCTCCAGGTTAAAAGCGATCCTCCC
GCCTCAGCCCTNCGAGTAGCCGGGACCACAGGCACCCGCCACCACGCCCGGNTAACCTT

Sequence 804

TACTATAGGGCGAATTGGANCTCCCCGCGGTGGCGGCCGCCCGGGCAAGGTAAGTCTCTAT
GACTATCAAGCTCAGGCCTCTCCCTTTTTTAAACCAAAGTCTGGCAACCAAGAGCAGCA
GCTCCATGGCCTCCTTGCCCCAGATCAGCCTGGGTGAGGGGACATAGTGTATTGTTTGG
AAACTGCAGACCACAAGGTGCGGGTCTATCCCACTTCCTAGTGCTCCCCACATTCCCCAT
CAGGGCTTCCTCACGTGGACAGGTGTGCTAGTCCAGGCAGTTCAGTTGCAGTTTCTTGT
CCTCATGCTTCGGGGATGGGAGCCACGCCTGAAGTAGAGTTCAGGCTGGATACATGTGCT
CACCTGCTGCTTGTCTTCTAAGAGACAGAGAGTGGGGCAGATGGAGGAGAAGAAAGT
GAGGAATGAAGTAGCATAGCATTCTGCCAAAAGGGGCCCCAGNTTCTTAATTTAAGCAAA
CTAAGAAG

Sequence 805

CCGGGCAGGTACAATGGACTTTGACAGTCTTCCCAAACAGATCCTAATTTTAAACATTA
GGTTTGCTTTGATTCTTTTCTTGGGGCTAAGAGCTCACAAAGACTTAGGTTCTGGTCAT
GGCTCCAGAGGCCACACATTCCAGGACAAAGTCTCTCTACAGTCAACGCCTTAGTCCCAC
ATCTGTAAATCGGAATAATCATCCCTGATCCAGCTATCACATTGCAGTAGAGTGAGACT
CAAATGAGATAATGGAAGACAGTGGGAATGATCATTTCCAATTGGCCTGGCTGACCCAT
TCCTTGTCTAAAGTCAGCTCAGGTTTACCTCTTCCAGNGAAGTTGACCTGGCACTTTC
TTTTAGGATGGCTACTGCTCCTCTGGGTGCCCGGGGCTCANTGTCTCCCCATCACCGCC
CATGGCACACTTGGAGTGACTGGTCCTTTACTTTGNTT

Sequence 806

TNCGGGCAAGGTACATTGGCCCCAAAGAGNAGGAATTCCTTGTAGAGGAGCTTGTAGATG
CTTNCCCTCCAGCGGAGAAGCAGGCCAGAGAAACCTCCGAAGCGGGCCTCCGCCACTTTG
AGAGTGTATGAAACCGTCATGGTGCTGGGAGCCTGGGGCAGGAGGTACAAGAGTTGCC
CCAGGGCTGTGTTTTAGTTCTCCAGACAACCTCCCTTCCACTCTGGTCTCACACACCCCA
GCCTTACCCTGCGTCAGTGGACAAGGGGGTAGGAGCCTGCAGAGCAGAAAAGTACCT

Sequence 807

AGCNCCACCGCGGTGGCGGCCGANGTACGCGGGATATGTAGAACTTCACNNGTTTGAAGT
TGGCTGATTAAATATACTAAGTATTACTGAATCACTGCCCTGCCTTTTCTGCTTCTTTA
CAGACCTGTTTGTATACACTGTATGTATTTTTTTTTTTTTTTTGGAGACTCCGTCTCAAA
AAAGAGAAAATTATGGGCCGGGCACAGTGGTTCATGCCTGTAATCCAGCATTTTGGGAG
GCCGAGGCAGGTGGATCACCTGAGGTTGGGAGTTCGAGACTAGCTTGGCCAACATGACGA
AACCTGTNTGTACCTGCCCCG

Sequence 808

CCGCGTGGCGGCCGAGGTACGAGACTTGTACCATGTGACATGGCAGCTTCAGAAACTT
AGCCACTGCCAAAAAAGAGCAGGCAGGGATAATGTTGTCCATTGTCCAGTCAGAGAGA
CCTGTTGAGTCTCTAGTTTGCCAGTCCCCAAGAGACCTTTGGAGTTTGTGGAGCCAGA
CATCCTGCTTAGAGATGAGGAAGATCCTGCTTCCGTGGGGAGCTCTTGAGACACCCGT
GCCACCACCCACCTTCTCCTGATTGCCACTTGTGCCCCCTTTTCCATTACCCTCTCCTGA
CTCCATAAACATCTTCAAGTCTTCCCTTTCTCCACCCCAAAAAATGCCACCTTGAAAG
GG

Sequence 809

AAATTAATTGGGGTTGNGCTAACTGCCCGGTTTTCAATCNGNAAACCTTGTGGGGCCCA
NNTGAATTAANANAATNGNCCACCCCCCGGGGAAAAGGGNGGTTTTNNAANTTTTGGG
GCCTTTTTCCCTTTTTTAAAAAA

Sequence 810

TABLE 1
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CCGCGGTGGCGGCCGCCGGNCACGGTACGCGGGGATGTCTTCTGAGAGAGTCAGGGCAG
CTGAAGACTGGGTGAGGGTGAGGGAAGCCGCTGGTGTCTCCTCAGTCACCCGTGAGAGG
ACTCCTNTGTGGAGCTAATCAACTGCAAGGAAGATTGTTCCAGTGTCAGACCTGAAGG
AGTCTGGACCCATAGTGCANTGAGATTTGGGGAAGGAAGGATTCCGGATAGGGGTGAGCT
TTNTGNTGATAAGCAAATGTGAAC

Sequence 811

CCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGGTGTATGGAAGCCAGTAACACTG
TGGCCTACTATCTCTTCCGTGGTGCCATCTACATTTTGGGACTCGGGAATTATGAGGTA
GAGGTGGAGGCGGAGCCGGATGTCAGAGGTCTGAAATAGTCACCATGGGGGAAAATGAT
CCGCCTGCTGTTGAAGCCCCCTTNTNATCCGATCGCTTTTGGCCTTGATGATTTGAAA
ATA

Sequence 812

CCNTCAGGTACCAGANCTTAGCAGGGATTTTGGACAACAAAAGCTCTAAATCCTCTTGCA
TCGACACGTTCAATTTGCACTGACCAATCTGTTGGCACAGTAACTGTTTATAAGCTAAAT
TTCTACATTTTGGCTACAAGTATCCCAAATCCACCTTTTAAAAATCCTAGGTAGATGCC
ATCTGGTGTTAATGATTTGCACACCCCTTAAATTGAAAATATTTTAAATAAATCTCACGG
TTTTATATAGTATCATTAAATGTGTCTATTTTAAAAAGACAATCTGAGAATAACACTTCCC
CTAATTGTTGTCTTAATAATGACCAAGAGCTGAGGAAAAATGATTCACACTGTTAGTTGT
TTTGTGTTTTGCTCACGGGGGAAGGGGGTGAAGTACTGGCTGTGCCTGGGTTTG

Sequence 813

CCGGGCAGGTACATCACCCCTGCTGAGGGACATCCAGGACAAGGTCACCACACTCTACAAA
GGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGACGATGGACTCC
GTGTGCGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGACCCCAGCCTGGTGAGCAA
GTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCCACCTACCAGTTG
GTGGACATCCATGTGGCAGAAATGGAGTCATCAGTTTATCAACCAACAAGCAGCTCCAGC
ACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACCATATTCAGGACAAAGCC
CAGCCAGGCACCACCAATTACCAGAGGAACAAA

Sequence 814

CCGCGGTGGCGGCCGAGGTACATTATTCATATCCAGCACTCCCTGCGGCTGCTGCTGGAG
GAGCAGTTATCCAACAAGGACTGTTTCAACCTCATCGCGTTTGGAAGCACAATTGAAAGC
TGGAGGCCTGAGATGGTTCCCGTGAGTCACAACAATTTACAAAGTGCTGGCGGTAGGTT
ATGGGCAGAGACTTCGTGGGGCTGTGTCTGAGGGAAGGTTTGAGGCATTGTTTTCTCTG
TCCCCCTCTCCACCAAGAAGTAGCTCTCTAGAGTCCCTGACCCCAAACAGCCATGGGCAG
AAATCAGAAAACAGCTTCTTCTGTCTGCTCTCCCCACCTGGCCATCTTCACTTTAT
GAGAGTAATGACATCGACTCCATCACGTCTGAGATGGGAAAAAGGCTCTTCAGCTACTCC
CAAAAGGGTATGCCCTGGGCATGGG

Sequence 815

CCGCGGTGGCGGCCGAGGTACTCTTTTTTTTTTTTTTTTTTTTGGAGACAGGGTTTCTGTT
GCCAGGCTGGAGTGAGTGACACAATCTCAGCCCACTGCAGCCTCCGCCTCCCAGTTCC
CAATAATTCTCATGCCTCAGCCTCCCAAAGTGGTGGGATTACAGGCGTGAGCCACTGCGC
CCGGCCACCTTTCTATTTTCTGGTTAACTTTCTAAATGTTTGAAATGGCTTCCAGTGAA
TTTCATTTTATTATTGGGGGAACTTCCATACTTATTTTCTTCTCCCAAATCTCCACA
AGTATACTCTCCTCCCAAATTTAGATAGTTGTATTTTCTGATTATTCAAATAAGAGT
GCTGAGAGGCTAATCACAAAGAGCAACAGCCAGAGATTTACAAAGTGGTTCTCTTACTAT
TGAACATTTTCACTTAT

Sequence 816

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCTGCCAGGTAAGATCAC
TCGTGGGTAAGAACATGAGGTTCTACCCGTAAGGCAGGATTTTATAGAAGGAAGGTAG
GTCTTTCAACCTATGTCCTCCTTCTGTTCCACAAAGTGGAAAGCCACAAGCCCTACAAAA
GCCTTGCAAGTCCCAGAGGCTGCAGCCGTATTTATTCTTCAGGCCAAGACTCTCAGGACA
GAGAGCACCCATGCACCCCGCAGGCTGCAGGCCATCTCCCTGCATTTGGGACTGTCCTGA

TABLE 1

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GGATGGCGGCTTCATTTTTGTCCCTCCTACCTCTGA

Sequence 817

GAACCTAGGGCGATTGGAGCTACCCNCGGTGGCGGCCGAGGTACATTTTGGCAAACCGT
GAAGGGCTTTCNTTTTNGCAGGTTGGACTTCCCCCCCCTAGTNGGCAGGATTTTTTTAG
GGGACCACCTGAGAAAGGTCTGTTACCGTGCATAAACCTCCTTTAACACCTTTAAAAAC
TCTTCTGGGGGCCGGACTCAGTGGCTCATGCCTGTAATCCCACCACTTTGGGAGGCTGAG
GCAGATGGATCACCTGAAGTCAGGAGTTCAAGACCAGCCTGGCCAACATGGTGAAACCCC
GTCTCTACTAAAAATAGAAAAATTAGCCAGGAGTGGTGGCAGGTCCCTGTAATCCCACT
ACTTGGGAGGCTGAGGCAGGAGAATTGCTTGAACCCAGGAGGC

Sequence 818

GCCAGGAAACCCGTAAAAAGGGCCCNGTTTGTGGCGGTTTTTTTCCATAAGGGTTTCCG
CCCCCTTGACCGAGGCANTTAACAAAAAATNGACNGCTTCAANGTCAGAAGGTGGGC

Sequence 819

CCCCCGGTGGCGGCCCGCCGGGCAGGTAAGGAAATGAGGCAAAAGTNTNTCTCTTCA
CTGCTAGCTCCTTGGGGACCAGCAAGCGGCTCTCAAGTTGCGTGGTGGCCCACTGGAAA
AAAGGCAGTTCGGTGCATCCTGGGAATATCCAGGTGAAAGTGTGAGATTTACCTAGAATA
GCTTCTGGGCCTCTGGGGTTTTACGCTGTCTCTGGTGAAGGTGTCCATTTTAGAAGTGA
AGCAAAAAGGTTTCAATCCGTTCCGTTTTCTTTGTTTTAGCACTTACCCAGNNNCCTCC
ATAACAAAGGTGGNGCCCCCTCAGGGAAATTAATTTTTTTTTTNTAAAGGCCTTGGCAT
TAANCCNTTTTTTTTGNNGGNNGGNAAANTTTTTTTTTT

Sequence 820

TAGGGCGNTTTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATCACCTGCTGAGGGACAT
CCAGGNCAAGGTCAACCACTCTACAAAGGCAGTCAACTACATGACGCATTCCGCTTCTG
TCTGGTCAACCACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTC
CAATTTGGACCCAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATT
CCATTGGCTGGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATC
AGTTTATCAACCAACAAGCAGTTCAGCACCCAGCACTTTTTACCTGAATTTTAC

Sequence 821

CCGCGGTGGCGGCCCGCCGGGCAGGTACGCGGGCATGCAAACTCCAGATTCCTATCTTC
TTTGGGGGAAAAGCAAATTGGAAGCTCTGACAATGCTGGGCTTTACTTTCCACATAGCA
ACCATCAGTTGGAGCTGAGACACCTCTGCTCTCTTTAGAAAGAATTATTAATGCTTCAGT
CTCCATTATTGCTTCCCTAACAGTGAGGATAAGTTATTGGCATCAANCCTGGCCGGTTTA
NCTTGGGGGTTTATTTNTNNNTTTGGGGCCTNAAAACCCCGGGGGGNNCCTTTTTGGCN
CNGNGGGGGGGGGGAANTNTNNNANNANGNNGGGGGGGGGTTTNTCTCNNCCCCCCCCCA
CNTNTTTTTTTTTTTTTTTT

Sequence 822

CCGGCAGGTACGCGGGGAGGTCATGCCCGTGTGAGCCAGGAAAGGGCTGTGTTTATGGGA
AGCCAGTAACACTGTGGCCTACTATCTCTCCGTGGTGCATCTACATTTTGGGACTCG
GGAATTATGAGGTAGAGGTGGAGGCGGAGCCGGATGTCAGAGGTCCTGAAATAGTCACCA
TGGGGGAAAATGATCCGCCTGCTGTTGAAGCCCCCTTCTCATTCCGATCGCTTTTGGCC
TTGATGATTTGAAAATAAGTCCTGTTGCACCANATGCAGATGCTGNTGCTGCACAGANCC
TGTAAGTGTGCTGCCATTGAAGTTTTTTTCCAATCATCGTCATTGGGATCATTGCATTGATA
TTAGCACTGGCCATTGGTCTGGGCATNCACTTTCGACTGCTCAGGGAAGTACCTCGGCCG
CT

Sequence 823

ACACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACGTGTT
AGCTATTATCATCACCTCCTTGCTAGGCAGAGCAGGACAGTGGGGAATTGATGTTTCTC
CCCCTCCATCTCACAGGTGGGGCAGGGGTGTGCTGAGAAGAGAACTTGGGACTCTTGGCC
CCTGTTCAATTCTCTGCTTAACCTGCTAGGCAATTTGGGCCTCTGAAAATTCAGTAATCC
TCATAGCAACTTAGACGTCACCTGGGCCTGTGGTCCCCTTCCTAGCCTAGGAGTCAGAGC
ATGAAGCTCCATCTGTCACATTGTTTGTTCAGAGAACTACACATGCGTTTTATTTAGC

TABLE 1

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AGCATACAGGTTCCCACTTAGGCATTGAGAGGACATAGGAAGCTGTTTAACTTCCTA

Sequence 824

ATCACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGTATTTTA
AATCCACTCATAACTTATCGGCCAAAAGTAGTCACATGGCTCCACCTAATCACAAGTGG
AGCGGGAAGTGCAATCCTACCTTGCTGGGGAAGGTATAGAGATAGACCAGCACTAATGA
CTACCACACTTCGCTAAGGTCACATAATAAATAAGCATCAGACATCAGGTGTGGTGGCTC
ATGTCTATAATCCCAGCACTTTGGGAGGCTGAGGCGGGCAGATCACTTGACTACAGGAGT
TGGAGATCAGCCCGGACAACATAGTGAACACGTCTCTACTAAAAACACACGCAAAAAA
TACGAGGCATGGTGGTGCATGCCTGTAATCCAGTTACCTGAGAGGCTGAGGCACGAGAA
TCACCCCTGAACCCAGGAGGCAGAGGTTGCAGTGACCGATATCATGTCACTGCAGTCCAG
CCTGGGTGACAGAGCGAGACCTTGTCTNAAAAAAAAAAAAAGAAA

Sequence 825

CCGCGGTGGCGGCCGAGGTACAGATGTATGGATCTCATAGCATTGAGGGGTCTTTCAGAT
TATGTTTTCAAACCCCTCACTTTCTCTTTTCAGATAAGACCACAGCGACCTGGGAAAGTG
CAACGTCTTAGCCAAAGACACAGAACTATTTAGCGACACTGTCTAGACTCTAGTTTCCAT
GTCTCCTGACTTCAGTCTAGTGTTCACCCCTGCCGCCACCCCTGCCCATCCTCATTG
CTCCTGTAGGAGAGGCCAGACCTTTGCCTGCTGCAGCTTGTGGCTCTTCTCCTGCCTTCA
GTTNTTCCATTGCCTG

Sequence 826

GGGNNAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCAGGTACCTGTCTGGGCAACACT
GTCCCGNNGGGGCCCCCATGACCAAATAACTCTGCTTCTACCCAGAAAGGGTGACAGGT
GGCCACTAGACTTTTATGTGGCAAATGGGATGGTTATGCCAGCCTGAAGCCAAGATGCC
CTTCTGGTTGCCTTGATTGTGTTTAACAGCTCAAATGCTTAATGAGGCAGTAAGAGA
CGTCTCTCTTGGGCAGTACCT

Sequence 827

CNAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGTGGTGGTGTGGCTACTACCGTTACA
ACTGCCTGTGCTTGGACATGGACCCTCTGCAATATGCGGCAGTTTCATTCAATGCCCCCT
ACATTCTACACCAAGTAGAAATGGAAGGCAATTGGATACTTCACAGACAAGATCTAAGTG
GAGAAGGAATGCGTCCTGTGGCTGCAGAGATCCTTGGAGCTTGGAGGGGAGAGCTTGAGC
CCCACTGATGATGACCTCCACAGCTCGCCAACTCAGCCCTCCCTAAGTCCCCATCGGGG
GCCAATTCTCACTCTGGGGTTGGGGGGACTCCACCATAGCTCATCCATCATAGGGGATGT
TGGTATCTACTGTGGGTTTGGGTAGGGCCCGATGTGCTGAGGATGGCTCCCCACAAGCA
AGAGATGTGGGATTG

Sequence 828

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATCACCTGCTGAGGGACA
TCCAGGACAAGGTCACCACACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCT
GCCTGGTCACCAACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCT
CCAATTTGGACCCAGCCTGGTGGAGCANGTCTTTCNAGATANGACCCTGAATGCCTNAT
TCCATTGGGCTGGGGCTTCCACCTACCAAGTTGGGTGGGACATCCATGTGACAGAAATGG
AGTCATCAGTTTATCAACCAACAAGCAGCTCCAGCACCCAGCACTTNTACCTGAATTTTA
CCATCACCAACCTACCATATTCCCAGGACAAAGCCAGCCCCGGCCCCCCCC

Sequence 829

CGAATTGGAGCTCCCCGCGGNGGCGGCCGAGGTACCTGATCTACTCCTCTCTACAACAAC
CTTGTGGGTGACGTTATTATCTCCATTTCAAAATGAGGCCACAGAGGTTCTAAAGGGTA
AATGACGATGATGATGAGAGGTAAGTGATAAAACAATGTCTCCTGACCACAAATCCTGGA
ATTTAAACATAAGNGTAGTAAACATGAACTCTAGGAAGCCTCCTGGGGCTTCTNCCTGTG
TCTGGAGCCCCTGCACATGCCCAAAGGAAGTCCTTTTGGTTCTNCGNTCAGNAGAGAAAG
GGNGCATTTCATAAAAGGGAGGTGGGGAAACAAGACTGGTGGTAGGG

Sequence 830

CCGCGGTGGCGGCCGAGGTACATTATTCATATCCAGCACTCCCTGCGGCTGCTGCTGGAG
GAGCAGTTATCCAACAAGGACTGTTTCAACCTCATCGCGTTTGAAGCACAATTGAAAGC

TABLE 1
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TGGAGGCCTGAGATGGTTCCCGTGAGTCACAACAATTTACAAAGTGCCTGGCGGTAGGTT
ATGGGCAGAGACTTCGTGGGGCTGTGTCTGAGGGAAGGTTTGCAGGCATTGTTTTCTCTG
TCCCCCTCTCCACCAAGAAGTAGCTCTCTAGAGTCCCTGACCCCAAACAGCCATGGGCAG
AAATCAGAAAACAGCTTCCTTCTGTCTGCTGCTCTCCCCACCTGGCCATCTTCACTTTAT
GAGAGTAATGACATCGACTCCATTACGTCTGAGATGGAAAAGGCTCTCAGCTACTCCCA
AAAGGTATGCCCTGGGCATGG

Sequence 831

CCGCGGTGGCGGCCGAGGTACGCGGGTAACAGGAGTCTTTGCTGAGTGATCATCTGTTTA
TTCTTTTACTCCACAAATATCGAATGTTTACAGCGTGCCTGGCACTGAGCAGGGCTGGGG
TTTCCTGACCATATGGACCTTCTGGGTATATCTGTGGGGCTTGAATGGTGTGTGACCTT
GTGTCCTGCCCC

Sequence 832

CGGGCAGGTNCGCGGGGGTGTTTATGGGAAGCCAGTAACACTGTGGCCTACTATCTCTTC
CGTGGTGCCATCTACATTTTGGGACTCGGGAATTATGAGGTAGAGGTGGAGGCGGAGCC
GGATGTCAGAGGTCTGAAATAGTCACCATGGGGGAAAATGATCCGCCTGCTGTTGAAGC
CCCCTTCTCATTCCGATCGCTTTTGGCCTTGATGATTTGAAAATAAGTCCTGTTGCACC
AGATGCAGATGCTGTTGCTTGCACAGATCCTGTCACTGCTGCCATTGAAAGTTTTTNCA
ATCATCGNACTTGGGATCATTGCATTGGATATTAACCCCTGGNCAATNGGCTTGGGCATT
CAATTTGACTTGNTAAGGGAAGTNCCTCGGCCGNTNTANAAGTGNNGGGATCCCCCGGCT
GGANGAATTTCAATTTNAACTTATTGATACCGTCCANCCTTGNGGGGGG

Sequence 833

ACCGCNGTGGCGGCCGCCGGGCAGGTACATCACCCCTGCTGAGGGACTTTTNNGGACAAG
GTCACCACACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACC
AACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGAC
CCCAGCCTGGTGGAGCAAGTCTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTG
GGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTTATCA
AC

Sequence 834

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTACCTTACCACCC
CATCCCCAGAGCATTGCATGGGGTGTTTGGCACACAGTAGGTGCTCAATGTAAACGTGTG
CACTGTGGCATGTTAGAGCCAGACAGGATCTCATCCAGCCGTTCTCTGCACCCCTCCCT
CCCCTCTCCAAGTAGCCCTGCTGTGGGTTCAAGTAAAGAGGGGCTGGGGCGCTGGTCTGA
TTGTGTGGGTGATTTGGGGAGATCTCTCCTCTTCCGGAACCCCAAAGGTTGGGACAAA
CACAGCAACAAGCCCAGCTCCCTGAATTCAGTGATTCATTTGTGGGGATAAAGGAGTGA
ATG

Sequence 835

CCGCGGTGGCGGCCGCCGGGCAGGTACTAGTTATTTTAAATCCACTCATAACTTATCG
GCCAAAAGTAGTCACATGGCTCCACCTAATCACAAGTGGAGCGGGAAGTGCAATCCTACC
TTGCCTGGGGAAGGTATAGAGATAGACCAGCACTAATGACTACCACACTTCGCTAAGGTC
ACATAATAAATAAGCATCAGACATCAGGTGTGGTGGCTCATGTCTATAATCCAGCACTT
TGGGAGGCTGAGGCGGGCAGATCACTTGACTACAGGAGTTGGAGATCAGCCCGGACAACA
TAGTGAAACACGTCTCTACTAAAAACACACGCAAAAAAATACGAGGCATGGTGGTGCATG
CCTGTAATCCCAGTTACCTGAGAGGCTGAGGCACGAGAATCACCTTGAACCCAGGAGGC
AGAGGTTGCAGTGACCGATATCATGTCACTGCAGTCCAGCCTGGGGTGACAGAGCGAGAC
CTTTGTTTCAAAAAAAAAAAGAAG

Sequence 836

GNNGNGGCGGCCGAGGTACTTTAACANGCCATACTCCAGTCCCAACAATGTTAAATGCCA
AAGCAGTGTTGGTAAAAGCCTCAAATGGTGAAAAGGACAGAACTCAAACCCGCCCTTGT
GCCAGTAAGTAACTGTTACTTATCTCACAAGCGCTTGGCTCTGGAAACAATCTAACTCT
GAGCTGCACGTGGAGTCTACATGGGAATGTGCAAAGCATGTATTTCTTTTAGGTGCAGC
AGAGGTAACCGAAATTCAGATAAGAGAAAAAAATCCAGATTTCAATGCAAGAGGTGGAA

TABLE 1

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GATCCACGAAGATACTCGTTACTATTTGGTTTCTAGGAGCAGGATTGCCACTAGATATGA
TGGAGAACAAAATGAAGAGGTGTTGTGTAAACAAAACAAAACAAAACAAAAGT
AGAAAGAAAGAGCAACAGGCCGGGCCGAGTANCTTCATGCCTGTAATCCCAGCACTTTT
GGGGAGGCCAG

Sequence 837

NTTGCGTTGCGCTNACTGNCCCCGCTTTCCAGTNCGGNGTAAACCTGTCGTGCCAGCCTG
CATTAAATGAAATCGGCNCAACGCGCGGGTGAGAGGCCGGTTTTCGTATTTGGGCCGCTCT
TCCCGCTTTCTTCGCTCACCTGACTCCGCTGCGCCTCGGGTCGT

Sequence 838

CGCGGTGGCGGCCGAGGTAAGGTAAGATACAATAAGCAATCCAGNAATNCCTCT
TTGAAGAATTTATTCTGATGAAATAGAGACAAGCCTATTAAGTATTCAAGGCAACATTA
CTTAAATATTTTATTTATTTATTTATTTTAGATGGAGTCTCGCTGTTGTTGACCAGG
CTGAAGTG

Sequence 839

AGGTACCTGTAGTCCCANTTACTTTGGAGGCTAAGGTGGGAGGATGGCTTGTTGCCAGGA
GGCGGAGGTACAGTGAGCCGAGATCACACCACTGCACTCCAGCCTGGGCAATAGAGCCA
GGCCTTGCTCATAAATGAAATATAAAATATAAAATAAAATAAAACGTTGTTGGC
AAAGATGTATTCAAAATAGTATGTAGAAGTACCTGGAAGGTAATTTTGAATATTTACC
AAAATATACTTTTTCATCTAGTAAGGTCTCCTTCTCAGAATCAGTCTTAAAGCCATTCAA
ATACAGATTTATGATTAAGATTTAAGTCCAAAAATGCTCATTATAGCAATATTTATAAT
AGGAAAAATTGGGGAAAAACAATTATACATCCAACAGTAGTAAGAGTGTGACTACATTAT
AGTATTAGTATGTAATGGGATTGTACAGAGCAACACACATGTTTTGAAGAATATTTAA
GGGCGTGATAAATATTAATGTAATGTAATGAAAAATGATATCTGTAGATTTTCAT
TATGCATTTCTTTATGAAATTTTNGATATACACAAAANAAAATAGTCATGATTTGCTT
CATGACGGGGACATATTTCTGAGAAATGTGCTGTTAGTCGGTTTC

Sequence 840

GGCGGCCCGCCGGGCAGGNACANCTTCCGTGGGGGGGCNAAAAACCCCCACCNAANCAA
AANAGCANCAAAGGAAGAATTNNTTAAGGGCAGGGGGGGGAAGCCCCNAAAAACCGANG
GCAAANNCCAGAGCNGNGGNNNAGCNCNAGNNNCNGGGAAGAGCAANCANNACCTTTTG
TGAGGTTTTNGNGNNGGAGGGGGGAACCCCCCGANAAAAAACCCAGNAGCCCCCCCCA
CNNAACAGGGGANGAANAAGAGGAAGGNAAGGANNNAANNAAGAGCCACAGNCCNGGAA
ACANGAAANCANNANNNCAGACANGCCNNNGAANANGNNGCCNACNNNAAAAGAGGNNN
GGNGCGCCANNGGGGAGNAAANNGGAANNANNAAAAAAAGGAAAANGGAANGAAN
GAGGANAANANNNGGGGAGGGNAAANGGGGCGGGGGNNNAANGCCNAANAANANNNAGN
NNNNGGGGAGGGCCNG

Sequence 841

AGGTACCTTACCACCCCATCCCCAGAGCATTGCATGGGGTGTTTGGCACACAGTAGGTGC
TCAATGTAAACGTGTGCACTGTGGCATGTTAGAGCCAGACAGGATCTCATCCAGCCGTT
CTCTGCACCCCTCCCTCCCTCTCCAAGTAGCCCTGCTGTGGGTTCAAGTAAAGAGGGGC
TGGGGCGCTGGTCTGATTGTGTGGGTGATTTGGGAGATCTTCTCTTCCGGAACCCC
AAAAGTTGGGACAAACACAGCAACAAGCCCAGCTCCCTGAATTCAGTGATTCATTTGT
GGGATAAAGGAGTGAATGATAAAGTGAAGGACGACTGTCCCCGCG

Sequence 842

TAGGGCGAATTGGANCTCCCCGCGGTGGCGGCCGAGGTAAGGCTATGAAATN
GGGAAAACCCAGGTGATTCATGCCTGCTTAGCTGCAGNATNTCAGTNGCANTAGGTGG
AACCCCAAACCCAGNGCANAGTGCCAGNGTCTGCTTNGGTGAGATATGAGTGTCAAGTCT
CGAACCAAGCAACCTATCNAAAGCCTGNGACACTCCTGGCCACAGGCGGNTGGTANAGGC
ATAGNANACTATTGCCAGGTGACGTGACTTCACAGATGCTGGGAAGCCTGCTGCCCCAT
CCAATACAATACTGCCCACTGTGCATAGAAACCAGATTCAAAGTTAGAGCTTCGTTTTG
GCCATGAGTGCAATTTCACTGCAATGTTTTATCTTACTCAACTGCCAGGGTCAATTTAGG
TGGTAGGGCTAAATCTCCTTCTTATATTGGTCCAAATGATTTTTCTGATGCTGCATTC

TABLE 1
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CCGGA

Sequence 843

CCGCGGTGGCGGCCGCGCCGGGCAGGTAAGTGTGCTTAGACCAGGAACACAGGGAGGTAGAG
GGCAGCAGAGCAGGGACTGGCTTCAGAGCCAGACAGGTGGCTATGTGACTTAATGTGTCT
GAACCTGGTATCCTAGTCTATTAAATGGTATAACAGCAGCTTCTAGTATGTAAGTTCCCT
TGTCGGGAGAAAACTGTTTGTCTCATGGCTGGAGCCTTAGCATGTTGCATCATATTGAA
CATGTAATAGATGCTCAATAAATATATTTTAAAGATAAATAAATGTAAATGAAAATTAC
TTCACAGTGTCTGTAGAGATTTTATAAGATATGGTATACACAATGCATAACATAGGAA
CTGACGCTCAAAAATGCCAGTACTTCCATCATTGNGTCATAGGCTTTTATGTTCAATTAT
CCTGCTGCATCATCCCAAAGAA

Sequence 844

CCGCGGTGGCGGCCGAGGTACGCGGGGAGGTGATGCCCCGTGTGAGCCAGGAAAGGGCTGT
GTTTATGGGAAGCCAGTAACACTGTGGCCTACTATCTCTTCCGNGGTGCCATCTACATTT
TTGGGACTCGGGAATTATGAGGTAGAGGTGGAGGCGGAGCCGGATGTCAGAGGTCCCTGAA
NTAGTCACCATGGGGGAAAATGATCCGCCTGCTGTTGAAGCCCCCTTCTCATTCCGATCG
CTTTTGGCCTTGATGATTTGAAAATAAGTCCTGTTGCACCAGATGCANATGCTGTTGCT
GCACAGATCCTGTCACTGCTGCCATTGAA

Sequence 845

CCGCGGTGGCGGCCGCGCCGGGCAGGTAAGTCTAACCCTAAGGGATTCTACAGCTTTTCT
GCATGTTAAATAGTCTGTTTAGCTTATTCTCTTATTACTTGTCTTGGTTTTTACTTTGA
AAGTTTGCTTAATAATCATGGGAATATTTAGATTTTAAAATACAAAATATACAAGCTAA
ACTTGAGAGCAGTTTTAGTTGTAGAACTGTTTCTGAAGTAATTGACTTAGCGTTTGC
TCTGCCTCTTTCTTTCTTACCTAGGTAGGTAGTGGGGACTCCTCAATTATCTGAGCAA
TTCAAATCTCAGAATGTAGTGTGGGTAAATTGAGGGTT

Sequence 846

CCGCGGTGGCGGCCGAGGTACATCACCTGCTGAGGGACATCCAGGACAAGGTCACCACA
CTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGACG
ATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCCAAGCCTG
GTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCCACC
TACCAGTTGGNGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACCAACAAGC
AGCTCCAGCACCCAGCACTTCTACCTGAATTTACCA

Sequence 847

TGGAGCTCNCCGCGGTGGCGGCCGNGGTAAGTCCAAGCAGTCCCAAAGTGGGAGTNCCTAA
AACACCATGGGCAGGTGAATGGCTGACCAGGTGGAGGTGCACAGTGCACCATGACAAGAG
CAGTGGAAAATGGGTGAATCTGAGATGCCTGGAGGCGAGGGGGAAAGAGCACATCACAGA
GGACAACGTCCANNNGGACACCCTTTTATA

Sequence 848

CCGCGGTGGCGGCTGTGGACTGAAGGGTGAAGTTCCTGCTGTTCTCCATGGGAACAA
GTTGTTTCTGGAGTCTTCCAAGGAGAATTTCTCACAGTGGACCTGATCTCTGGGCTGATG
CTGGGTTCTTGGAGCTCATGATTTGAGAGTGGTAGACATTTCTGGGCTTCTGGGGAT
GTGCCTGCTGGACTGCTCCCCGTCTCCTCTGCTGGGGCAGGCCACGTGGAATTTCTTGT
GCTGCCTGGCTTGACATCTTA

Sequence 849

CCGCGGTGGCGGCCGAGGTACCTGAAGAATCTCTCTTCAGCTCTCTTCTCCTGGAACTT
GAGTGGGGCAGGAGGAAAAGCGGAGCTAGGTGTCAATTTAATGAGGAACATACTTGTCTC
CTCCATTTATCTGGCCCTCCCTGATGGCACTCCAGAATTCATCCACACGATTAACAA
CATAGTTTCCCTTTTCTGCTTGAAGGTCCATTCTCCTCTCAATTTCAAATCACCTGAGAT
ACAAAGCTGCATTTCCCAACAAGAACCAGTTCCTCTCCTTTCTTCAAGTGTACTGTCC
TTCTCTCAGACCACCAAGCTTAAAACTCCAGAGGCTCAAACAGCAAAGATGGCAGCCCG
CTCCTCCCTCTGGGGAGTTCTGGCCCAAGGAGTTTCAAATTTCTGTAGGCGGAAGAATA
CTAGCGGGGAGTGGCTGGAGACCCAGTTGGTAGGGNTCCACATTTGGGGGAAGTGAGCC

CAAGCTTTTN

CCGGGCGAGTACATGAAAGTAAGATCACAAACCACAGGAACCACACAAAATTCAAGGCACC
AGAGGAGCCAGACTTGGCTGGCAATGCCTGTTTTGGAGCTATTCCACATTTCTGGAAGT
CAATGGGAATACCGGAATATGAAAACACTATGAGGCCGGGCACAGTGGCTCACGCCTGTA
ATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCATGAGGTGAGGAGTTCGAGACTAGC
CTGGCCAACATAGTGAAACCCCATCTTTAATAAAAAATACAAAAAATTAGCCGGGCGTGGT
GGGGGGTGCTGTAATCCCAGCTACTCCGGCGGCTGAGGCAGGAGAATTGCTTGACCTC
GGC

CCGGGCAGGTA CTTT TTTCTTTTCTTTT TTTTGTAGTGGGGCGGGGTTTCGCCA
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GGGATTGCAGGCGTGAGCCACCACGCCCGGCCTCGATATATTCTTACAGTGAATACTGC
TCAGAAATACTGATGAATCTTAAAAAACATGATGTTTAGCAAAAGAACCTTGGTATAAGG
TTCTTGGTATAAGGGATACATACTCTATGATTCCATTATATGAAATTCTAGAACAGGAAA
AACTATAGTGAAAAACAATCAGATTAGTGGTATCTGGGGTAGAAAGTAGGAGGAGATTGA

CNANAGGGGCTTTTTGGGGGGCAAAACCGCGGNGGCGGCCGCNCNAGAACNAGNGGANCCCT
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 AGCNGNNNCCNGNGNAANNGANANCCGCNCACAATTTNTCTTTNTAGNCGAGCCGGG
 AGCAGAAAGCCGCAAGAAAAAAGN

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GTAGGGAGGGTGTCTTTGCAGCATATTTCTTCTTTGGAGTTAACTGCGAACGTTGCACG
GCGACCTCTTGATCCATTCTGTGAAAGCCCCAAGCCTGTCATGCAATAAAGACGTCCAGT
TTCACCGCAGCAGGGAGGCCGCATGAAATATTCACCTGAACAAAACCACTTAGCAGTTT
ACATCAATGCTTACCCTGTCGCATTGAAAGTGATGTGAACCCACACCCAAGAGCCCCCA
ACCAGCACGTTGATACCAAGTTTCCCCAGCTGCATCCAAATCAATTCTTCTT

[illegible]

CCGGGCAGGTACGCGGGCTACACACAGTTTCGGATGCCAAGGGTGACACCCCATTCCT
TCACAAGAGGCGGTTCTGTCAAAATCAGCACTCCACCCCCACACACCTCTCAGTGAAT
GAAGTGCTGGTGGTCTCACTCCCCTGGTGACCTTAGCCGTGGGATGGGGTGTTAACT
AAGGCTTCAAGCTGAGAATGGCCATCATGGCGGGAGGCTGTTTGCAAAGGCACCTTCTGT
CATCCTGGGGTTGGCTAAGTCAACTCCACCCCTTCCCAAAAAAAAAAAAAAAAAAGTACCT

GCCAGGATTCAAACCAGGGANTTTGCTCCAGCACTCCGGCTCTTAACCTCAACCGTCTGC
CTCTCCACAAACACCAGGATCAACCACCAAGACCAAAAAAACAGTCTCACAAACCATCAA
ACATTGCACTTGGTGGCTCAGGACCTTAGCTTCGTCTTAAAGGTCCCTGTTATGCTTTTT
CTTTTTGCCCCAGTGTGGAGTGGTCTTCGTGTTTGTGAGTGCAGGGGTCAGGGGTTGTGT
CTTTTCTTCTTGTNCCCTTCCAAGAGGTGACATGTATCCTTGATACTGGAAGGGCCCTT

Sequence 857

AGGTACGCGGGCACTCCAGCCTAGGCAACAGAGCCAGATTCTTTTTTTTTTTTTTAAAA
AGTCTTTTAAAAAATTCTTTATTGTGCTGATTTTATTGTGTCATGAAGTGTAATATCGC
ATGTAGGTATGTGTCAAGTATACAGAGTGTCAAGGCATACGGTGTTCAAGTCATAAGCAGTT
CTGGCCTTTGGCCCTGCACTGTTTGTGGCTTTTTAGGTAGGAACCTTCTTAGAGTAAGA
CTGTCATGCTAAAATTGTAGCAATCAAATGTGCCCCCATACAACCTATTTGAGGTTGAG
ATTATGTTGCTAGAGTGGAGGAGATTGGAGTGTCTAAATGCTAACAGTTTGTCTTGCCT

[illegible]

GGCAGGTACAACCTCCATCCCCTGGGCTCAAGCGATCCTCCCATTTAGCTCCCCCTGTA
GCTGGGACTACAGACACACACCACCGTGGCTGGCTAATTTTTGTATTTTTGTAGAGGCCA
GGGTTTTGCCATGTTGCCCAGGCTGGTCTTGAACCTCTGAGCTCAAGTGATCTGCCTGCC
TCGGCCTCCCAAAGTGCTGGCATTACAGGCATGAGCCACCATGCCTGGCTGGGACATTAT
TCAAATTGAAGTGAGGACATGATGTTAAAAAGTTCTGGGCAAGTATTTACAAGTTAAAA
TACAGATGTAAGACTTGACTTGATCAAATGCCCAGCTCTGTAATTCACCTAAATTG

AGGTACAACATTGTGAAATTTTCCTATCATTTCTCTAAAACCTCTGCAGGCATGGAGGC
TGTCGCTGAGATATAGCAGGGAACAATTTAACCCCTTTGTTTTGCACCCACAAGATGAGC
ATTACCAAATTTCCCAACAGAGACATGCTGGGGCTGTGCTGTGCCTCCACCTGCCCCCTC
CACAGCCAGCTCCGCGTGTCTCAGTCTGTAAGTGATAGCATTCCACTTCCTGCCTGTACC
TCCCCGGC

CNCGCGCGGCCGAGGNACACNNANAANAACCTTTTAAGGGGNGGAAAAACCCAANCCCCC
CGNCCNACCNCAGNGACNNGANGNATNTACNGGAAACAGGGCGCAGCCCNAGGAAGGACA
GNNGAAGNCCNNACNGNGCAAGNCNAAANNNNNAAGGAAAANNAGNCCC GCANGAGNNNC
CNCANGCTTTNNNTNTGCGGGGACCAGNCAGGGGNCNCCCCGACANAANCAGGGCNCGC
CGNCGGNGGNAGAGNCACNNNGCAGGGGNGNGGAAGCNGCNCNCANCCANGGACCNNGG
CCGCNCNAGAACNAGNGGANCCCCCGGCNGCAGGAANNCGANANCAAGCNGANCGANAC
CGNCGACCNNGAGGGGGGGG

AGGTACTTTTTTTTTTTTTTTTTTTTTTTTGGNAGAGATGGGGCTTACCATGTTGGCCAG
GCTGATCTCCAGCTCCTGACCTCAAGTGATCCACTCGCCTTGGCCTCCCAAATTGCTGGG
ATTACAGGCGTGAGCCACCGCACCCGGCCAGTCTTCATATTTATAAATAAAGTCTTGTG
GGAACACAGTCACATTTATTCATTTACATTTTGAAATAGCTGCCTTCAAGAGGTAGAGT
TGAAAGTCTTTAAGACAAAGATCAGGTGGCTTGCAAAACCTAAAACGTCTGGTCTTTTAC
CTAAAAAGTTTGCCAACCCCAAAACAAGAATATATTGATTGTAATCTTTACAAAGGTGT
TGGCTATATTTTCAAGTGTGT

NCTATAGGGCNAATTGNAGCTCCCCGCGGTGGCGGCCGAGGACAAATTCAGTCCCAATAC
 TCAATACGTATTATAGATGACTATTGAGTGCAAACCTTAGGATGNCATTNTCTGAATAATN
 GNTCTTTGTAGGATTTGGTTACATTATTTAAAATGAAAAAGATCTAGTTTTAGTGTGAGC
 TCAGTAATGNTAATNGGTTAAGTTCATTGCGAATCTTGAGTTTTAGATAAGTAGTTATTT
 TTTTCAATATCACTTCTGTTTTAGTGATATTATATCAAGAAACAACGTATTCAAGAACC
 ATGGCTGACAGTGCCAGATATACTTAGGGATAAACATCAAATGCAATTATAGTTGCTAT
 AACGTTAGATACTCGGAATCAAATTTATTTGCANGCTGACTTGATAAACTAAATGAA

Sequence 864

TABLE 1
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TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACAAGAGTCAGCAG
AAATGTGTGCTTTAAGCAGAGTCACAGGGGCTGGGGCTGAAGTGAAGTCATTTCTCAAAG
ATATCCCTGCCTGGGATGATGATGGCTCTAATTGAAGCTCTGGCATCATCTGGGGCTTTA
TGAGCCAAGGGAGATAAGAAGAGCCACAGCAAAACCTTGGGTCTACAGTGCAGGCTGCA
ACCAAGGCAGCATTTGCTAGAATATTTGTGATTATGTGTTCAACCTACAACCT

Sequence 865

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCATATTAT
ACCTTTTTATTGTTGTTATAATTATTATGGGGTATTTCTAATTAATATGATGTTGAAACC
TGTTTGGCACCTTCTGGAAGCTACCAAAAAAATGACACTCCATTGAAGTGCTTAAAGCT
GTTCTCATAAGAATTCTACTGGCCTATTGTAAAAAAGAAAAAAGAAAAAGAAG
AAAGACACAAAGAAAATAATCTAAACACCAAAAACTAAACACAATTCCAATCCTTTTTCT
GTACCT

Sequence 866

ACTTAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACGGAATCTGGACAGTG
CTGCACAGATTGATACATTAGCCTTTGCTTTTCTTTCCGGATAACCTTGTAACATAT
TGAAACCTTTTAAGGATGCCAAGAATGCATTATCCACAAAAAACAGCAGACCAACATA
TAGAGTGTTTAAATAGCATTTCTGGGCAAATCAAACCTCTGTGGTTCTAGGACTCACA
TCTGTTTCAGTTTTCTCAGTTGTATATTGACAGTGTTCTTTATTGCAAAACATATA
CCCGATTAGCAGTGTCAGCGTATTTTTCTTCTCATCCTGGAGCGTATTCAAGATCTTC
CCAATACAAGAAAATTAATAAAAAATTTATATATAGGCAGCAGCAAAAGAGCCATGTTCA
AAATAAGTCATTATGGGCTCAAATAGAAAGAAGACTTTTAAGTT

Sequence 867

CCGCGGTGGCGGCCGAGGTACATAACATGATATCAAGGAAATGCTTGAAACAAACTTTCA
CAATAAAGTCAGAAAAAACTGTAAAAATTGTCTGCAATCCAAGAAAAAGCACGTGCCCT
GTGTGTAGGGGAAAGAGGGAAAGCACTTGCAAGTGACTTTATGTGGTCTTTCCCAAG
TATTGCTACGTTTTGACCTTTGGCCCAACTGAACAGGTGAAATGCCCTTCACATAAGTTT
CAATCCCCAAGAACTAGCTGGAATGCAGGGGACTGTAGACACACTCCTGGACCAAATGG
CATCGACTCTCAGAATCCAAAATGGGCCCTGCCCTCATTCTGAGCTTACGGCCCCAAGCA
TATTCTAAACAAAGCTTTTTTAA

Sequence 868

CTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTACAGGATATCAC
CTGAATTATTAATGAATGCCAGGAAGTAATTTTCTTCTCATTCTTCTAAACTACTGCC
TTTCAAAGNGCACACACACCGCGTNCACATACACTGCATTGCTTCCAGTATAAATTA
CATGCATGAGCACCTTTCTGGCTTTTAAGCCAATATAATGGGCTGCAAAATGAAGACACC
ANAGTGTATGCATACAAATCTCACTGTATTAAGATGCAGGTTTTCTAATTGTACCT

Sequence 869

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTGGCGACGCGCGGGACAAAG
GGAAGCGAAGCCGGAGCTGCGGGCGCTTTTTCTGCCGCGGTGTCTCAGATTCATTCTTA
AGGAAGTGAAGAACTTAATCTTCAAAAATGTCAAAAAGACCATCTTATGCCCCACCTNCCA
CCCCAGCTCCTGCANCACAAATGCCAGCACACCAANGTTTGTGGGATACAATCCATACA
GTCATNTNGCCTACAACAACACTACAGGCTGGGAGGGAACCCGGGCACCAACAGCCGGGTCA
CGGCATCCTCTGGTATCACGATTCCAAAACCCCCAAAGCCACCAGATAAGCCGCTGATGC
CCTACATGAGGTACCT

Sequence 870

GACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGG
ACCCGGAAGTTTAAATTCGCTCCCTCCACGAAAGAGTTGTAGTGAGTGAAAATAATAT
TAAACACACGGAATGTATTTTCTGGCTGCAGCACCGCATCTTGCTCGGNAGGAC
TCATTTTNAAAAACAGCAGCTTCTTGAAGCCCCANAACGCATTCCTGTGCTACGG

Sequence 871

CCGGGCACGGTACAGAGCCCAAGACAAAAGATAGGCCTGTGAGGATAACATCTGGTATAT
CTGACCCTTCCCAGCATGGCCAGGAGGCACAGCCAGGCCAGGGAGGGCATACTGGGTTTG

TABLE 1

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GCTTTGCCCTGCAGCTGTTGGCCTAGGTGCTGCGGTCATACATATGCCCTNAGGCCTTTC
CATGGCTACCTACCTAGAACCCAGATTCTTTTTTTTTTTTGGAGACGGAGTCTCGCTCTG
TCCCCCANGCTGGAGTGCAGNGGCGCCATNTNAGCTNACTTGCAAGCTNCGNCTTCCGGG
T

Sequence 872

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCATTCGGGGTCATCCGCA
GAAATTCCTCATAGATGGTAACCTCTGTCTACTCTCCGAGCCAGTGGCGAGAAGTTACACA
GGGAGTCCACCCCGGTGTGGTGCCTGCTTGNGGACAGACCTGAATGTTGAAACTTGACAG
TCAGAAAAATAACTCTTGATGCTGCTGTTTCGGAAGAGTTGGTTGAGCGCATCCTCAATA
TTCTTTTGTTCCTCTGGNAATTGGTGGTGCCTGGCTGGGCTTTGTCTGGGAATATGGT
AGGTTGGTGATGGTAGAAATTCAGGTACGAAGTGCTGGGTGCTGGAGCTGCTTGTGGTT
GATGAAGTATGACTCC

Sequence 873

ACTACTTAGGGCGAATTGGAGCTCNC CGCGGTGGCCGCCCGGGCAGGTACAATGCTCACT
GGGAACCAAAGTCAGGCATGGGGCTGGGCTTTAAGGAGCACAAACAAAAAGGAGGGACTA
GAAACTTCAGAAAGGTATTGGTGGGGGATGTTGCGGGGGGACAGGGGACAGCGAGGATG
TGGGATCCCGAGATCGTCCAAATCCCTATGTGTAGACATATGTGTATAAAGGCCTTTAAG
AGACTCAGGCTGATGGGGTATCTGTAATAAATCAAACATAATATAACAGCACGTCAAGTG
ATAAGGGGACTCTGGAAAAACAAGCAGCAAAAGGAGCAGTATCAAACCTCCACAGAAATTC
ACAAACATCAAGACACCAAGAAAGCTGCATTNATTTAAATCAAGGTGACAGGCTGGGCTC
TG TAGCTCCAGCCTGTAATCCTAGCACTTTGGGAGGC

Sequence 874

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGGGCAGGTACTTTTTTTTT
TTTTTTTTTTTTTTTTTTGGGATGGAGTCTCGCTCTGTCAACCAGGCTGGAGTGCAATG
GCACAATCTTGGCTCACTGTAACCTACACCTCCCGGGTTAAAGAGATTCTTCTGCCTCAN
CCTNCTGAGAAGCTGGGACTACCAGGGGATCCCGCCCCACCCCGGGTAGGTTTTTTGTAT
TTTTTAGNNAGAAGACAGGGTTTTCCNCCCATTATGGGCCAGGGCTTAGGTCTCGGAA
CCTCCTGGACCCTTNGGATCCTGCCCACCCTTGGCCTNCCAAAAATGCTGGGGATTAT
AAGNGGGGAGCCACTGTGCCCGGGCCAACAATAAATTTTTTTAAGGGTAGTCAAACCT
AACAACAAAANTTTAAAAGGTCAATCAGTAGTTCTAACTTTTTTTTTTT

Sequence 875

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAAGACTTTGTAA
ATGTGATTACAGGGCCCCCAGCACCCCTGTGTCTGCAGAGTGCCTTCAAACTCAGCTGTT
CCGGCCGGTGCCAACCTGTGAACCTCCCACCATATCCCAGAATCTGCTATTCCCCAAACC
ACTTCCCAGTTTCTTTCAGTAATCTTCTGAAGGAGCCAGGACAATAGGGCCTGTTGTT
TAGTGAATTTCTTATTATTTTCAGCCTTTAAATGTAATTTCCATCTCTTGCAATGAAT
TTGTTTCCCTTTTTTTTGCTTCATTTTGTAAATTTTTCAGGTATTTAGCTCCCCTTTCA
TATTATTTTAAATTTTTTAATTACCTGTTGTAGGGGTGTTCTCCAGAAGCAAAGAGCA
AAATTTTACTGTTGTGATGTACCT

Sequence 876

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGGGCAGGACGCGGGATTGA
TCAAAAGCTTTGTAACCCACAGGAAAAAATAAACTCTTCCATCCCTTAAAGAATAGAATAG
TTTGTCCCTCTCATGGGAATTGGGCTGTATGTATATTGTTCTTCCCTTAGAATTTAGA
GATACAAGAGTTCTACTTAGAACTTTTCATGGACACAATTTCCACAACCTTTCAGATGCT
GATGTAGAGCTATTGGGAAAGAACTTCCAAACTCAGGAAGTTTGCAGAGAGCAGACAGCT
AGAGATAACTCGGGA

Sequence 877

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGGGCAGGTACAAGTCTTA
AACTGCTCTGCTCTTTAAACCAAATACATACACATACACAGATATAGTTAGATACAGA
TGTGTGTGCATATAAAAAATATGACACTCCTTAGTAAAAATATTCTCTAGACCTGGGGTTC
ACACATCCCTCCTCCTGATCCGTGCTGGTGCCTACTCAGGCACTACTTTCAGATTTCTC

TABLE 1
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TTCTATGAGCTAAGGTTTTCTGAGCTAAGGTCAAGCGGTGACTTAGCAAGTTGAACGTG
TAATGAACCAAAACCTGTTTTCCATGGAACCAATAATAATTAATCTAGAGTGAGCCATTT
GGCCTCCAGAAACAAAGAGATTTCCATCACAGAGTGTTGGTGAGGGGTCATGAGTAAGGC
GGGGGGGCAGTGAGAGCAAGCTGTTTTATTGTGAGAGTAGCAGGCAGGCTGAATGAGAAG
GGGTAGCTGTT

Sequence 878

CTACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCAGGGTACCATTCC
GGGTCATCCGCAGAAATTCCTCATAGATGGCAACTCTGTCTACTCTCCGAGCCAGTGCGG
AGAAGTTACACAGGGAGTCCACCCCGGTGTGGGTGCCTGTTGGGGACAGACCTGAATGTT
GAACTTGACAGTCAGAAAAATAACTCTTGATGCTGCTGTTTCGGAAGAGTTGGTTGAGC
GCATCCTCAATATTCCTTTGTTCTCTGGTAATTGGTGGTGCCTGGCTGGGCTTTGTCC
TGGAATATGGTAGGTTGGTGATGGTGAAATTCAGGTAGGAAGTGCCTGGGTGCCCGCG
TACCTCGGCCGCTCTAGAACTAGTG

Sequence 879

CTNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTT
TTTTGGGGAAATAACAGGGGAGAGCAAATTTCTAAAACTTGGGGTTTTATAGTAATTT
CTGATTTTCATGTTTAGAAAAAGAAATCACATTAATAATATGCTTTTTTAAATTTTGAG
ATAGGATACACTATAATATTATTGTAGTCCAGAAATCTGTATACTATAATTCCTAGGGA
AAAAGAGAAAATTATTAGTGTCAAATACCTATAATCCCACAGTTACCATATACATTTT
TAAAAATTGTTAAATACACAAACAATGATGATGCTGTCTACTAGAAATGACAGGAGCN
AGAGCTTTTACCTTTCTTCAAATGCCTTAACCCCTTTCATTATTNCCAAGGTTCAA
ATTTAAANATTCTTTTTTTT

Sequence 880

CNCTACTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAATGGCGCAATCT
CAGCTCACTGCAACCTCCACCTCCTGGGTTCAAGCAATTCTCCTGCCTCAGCCTCCTGAG
TAGCTGGGATTGCAGGCATGTGCCACCATGCTCGGCTAATTTTTTGATTTTTAGTAGAA
ACGGGGTTTTCGCCATGTTGGCCAGCTGGTCTCCAACCTCCTAACCTCAGGTGATCCACCCG
CCTCGGCCTCCCAAAATGCATCTCTGGTCTTTAAATGCCCTTTGCTGTATATTCTATAAC
ATCAAGTCTCAGATCTGGTTTGACCTCAGTTGGCCTCTTAATAGTTTTCCCCTATGAACA
TTCTGGTCTCCAGTAAGCCTGTAAGCAGCTGAGACTGGGAAACCATCTCTTATATCCCA
CATCGTCCCATG

Sequence 881

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCACACTGGTAAAGAGTGGCAAGGTAGC
CTTTGTAACCAGATATATCTGATCTCAAAATCAATTTTCTTAATTTAACCACGTCAGTC
AGTCAAATGCTAAGGCTCTTCAAGCTACACTTGGTTCCCTCCACCTCTAAAAGGTGAGAA
CTCAAGAGAGCTGGGTTCTTTGGGACCTTATCATATTTTTCCCCTCCCTAGGCCTTGATT
TCCCATTGGAAAATAAATCAGTGAGGGCTTTCTAGTTAAAAATGCCAGTTGAAGCCAGG
CTTGGTGGCATATACATGTAGTTCCAGTTACTCAGGAGGCTGAAGTGGGGAGGATCGCTT
GAGCCAGGAGTCCAGTCCAGGCAACATTGCAAGATCTCATCTCTAAAACTAAAAAATG
GACCAG

Sequence 882

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTAATGAATTGAC
AAATGGAAGAAAATTTAAGGAGAGTAGCCTAGAGAACTCATTCTAGAACTAAATAACTT
AAGTCAAAAATTATTTCTATATTGCCTCAAGCCCTGCAGATAGCTTTGCTATGTTTGTG
TATTTGCACATTGCACTCCAGCCTGGGCGACAGAGACTCTGTCTCAAAAAATAAATGGA
ACAATCACACAGAAACATTCCCTTATTCACTGAACATTTCAAACCTGAAAATGTGTAA
TGAGAAATGACAAATTTTAAAAGTTTAATTACTAAAGAAGACAAAAATGTCTATTATG
AATAGACCAATTCTCAATTGGTAGAGGAACCTTGAAGTGGAAAGGAACCCTAAAGAAATC
TCCTGTCTACCCCTGTTATTACAGATTAGAACCCGAAAGTCCAG

Sequence 883

CCGCGGTGGCGGCCGCCCGGGCAGGTACTATAATTATAATGATTTAGATAGAACATGCA

TABLE 1
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ATTAGCCTTTTGAATCCAACCTTCTGTGCAAAATTTTAGTATCAGAAAATACGAGATTG
CAGGGGGAACATCAGTAACTACCATTAAATGTCAATGCCAGTTTGTGTTAGC
CTGACACTCCCAAACAGTTGTAGAATCCGATAGATGACTGATGGCAAAAGATTGTGAACA
TGTGGAAGAAAATCAGTGGGATTCCGGTGCTGATGAATAGGTTGCCTTCAGAGTATTATTG
ACAGACAGCTTGTGGAACATAATCTTTATTTTATGTTGTGGGAATTAACACATCAATG
GTGGTTATGGGAACTACCAATGGGTTCTACAAT

Sequence 884

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTAATTCTAAATTATAAG
AAAATATACATTTGCACTTATTAATATAGAAATTCATTTTGTGTATTTAACATAGCTT
TTAACTATTTTACATTAGCTACTTTTATTATGGTTTCTTGAACCTCTGAAAAAATTAG
AAATGTATTAACCTTATCAGTAACATAAAAACTTATTTTGTTCACCTAACGAATACTGC
GTTTGTAAAAATAAATTTAATATAGAATATATTTTAAATTAATATTTGAATATAAAAT
AGCTCTAAGAAAGAAGCAAATTATCACTGAACATATTTCTTATTATTTCTGGCTTTGAAT
TAATACGTAACCTTAAATTGGCTTAAATGATCCAGAATATTGGAGGAATATGATACTTTCA
CATAATATACTATGAACCTGTTTATATAACTCTGGATTGGCTACCTAACCTTCTGNTTTA
ATG

Sequence 885

CTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAAGTCACACCCAG
CCAGTCAATAACTGAGAAATCAAAATAAAATAAATTTCAAAGAATTACATAAAATACAG
GGCCTTTTGAGATTTTGGCAATTGTAAACAAAAACGAATGGTTTTTACAATTCAGTGTA
ATTCTACGAATATTTATTTGGCACCCATGTTAGGCACTGAGGCTACACAGCAGTGAAATA
GGCCTAGTTGTTCTCAACTAGAGAACATAGTTGGTTAATGTAGCTGCACTGAATTGTAAG
CTGTTTAGAAGATAATATACCCTGAGGCTTTTTAAAGTATACTATTACTATAAGGAAGTA
AAATTATTTTATACTTATAAATTTTGTTTGGATTATTCAACTGAATTTGGAGTGTTTCA
AATTTTATGGGCGGTTGGGGACAAGGAAGAGGTATAATGCTATTTTTTTTCTTTTCTTT
TTT

Sequence 886

CTACTATAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGCGGCGGAGGTACTTTTTTTTT
TTTTTTTTTTTTTAAATTTCCACCGGTGCCGAGGCCTCAGTGGAGCCTGGCTGGCGGCT
TGTTAGAGCCTGCAGCCTACCTGTCCTGCATAGGAATGAAGCCGGGAGGAGTTACATGAT
ATGCCCTCGTTGCAGGCCGGGGACACAGCTACCGCATTGAGAGACCAGGAAACAGAGCAA
AAGCTGTTCTCANAGTGCGGCTGAGCGAGGAGCTACAGGGGAATGGNNGGGGGCAAGCTG
CATGGAAGATTGTCCCATTAACCTGGCTTTTTACCAGGGTGGTCCCTNTCCCTAACCCCTA
AGAATCACACCCTGCATCCAAACGGCAGCAACCCCAAAA

Sequence 887

CNCTACTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTT
TTTTTTTTTTTTTAAAGCTGGGATATCTTACAGAGGAAGGAAAAATTAACCTTTTTTACTTT
CTTTCTCACTTTTTAAATCAGCCAAAGTCAAAGCCCGTTTGCCAACCTGCATGTCCATGC
CTGTAAGCCCTTCTNTTGGCCAAGGAAGAAAGGAAGAAAAAGAAACCCAGGGGCC
TGATCCCCCTGATTAACACAGCACAGCACTCCAGGCAGACATGCCCGNGGCGGCTCCT
TTGCACCATTGACCTCAGGCCAGACACCTCAGCGCCAACAATGGGACCTCGGCCTTCCGG
CTAGGTTTCCCCAGGCTGGGCAGGAAACCAGCTCGGCCGCTNTAGAACTAGGTG

Sequence 888

CCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGAGAGACATTGTGGCTAGCCAACCACA
TGGTCAGCCTCAAAGTTGAGAGGCTCAGTAACCCTCCTATCCCTAGAGAATTCCAAAGTG
TGGATGTAATTTAACCTAGGAAAGCCATTGGTGACTATCTGTGATCCTCTGGAAAGTATG
CTATGTTGGGGTATATCTTGCATCCAAAGCCAGAGGGGAACCACAATGGCCTAGTAAAA
CCGGTGGGTCTCAAATGCCCACTTAAGCCTCTGGCCTNTTGAANTTTGACCCATAGTG
GGCCGTTTCACTTGATTAGAGCCGGGAAAGAAAGAAATATTGNCATTTTTTTTNTTGA
AAAAAAATTT

Sequence 889

TABLE 1

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CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGGATCTATGCTGC
TATGGGTGGAGAATCGACATCCTTTGAAACTGGCCACAGGCAGAGCTAAGAGGATGACTA
AAAGGTCCCTTGGGTGGGTGCTAATGAGCAGGGGCCAGGAAAACCTCTGTCTTCCCGGA
GAGCCCTCTTGCATGAGTTTCGGCTTTGCCAAGATTCCAGGGACTTGAGGACAGCTATTG
AGTTATGGTTACGTGACTGCCACATTGGGGCTTGGAGGCATCTGGCAGATGGTTGGGAAT
GGGCTGGCACCACACTAATTAGGCCACGATGATCCAGTTTGACTCAGGGAAACCCAGAAG
TCATAGTNCTCTTTCAGAAATGACACAAGGATGTCAACATGCTTTGNTTGTGTACCTCGG
CCCGCTCTAGAATAAGTGGGATCC

Sequence 890

CCGCGGTGGCGGCCGAGGTGCATATATATATACACACACATATATATATTTATGTATC
TTTTAAACATATAATTACTCTCTTTAATTCATTTGGACTTTTCATCTAACTTGCTCTGT
TTGCACAGGTCTGTTAGGGTAAGATATGTTCTACCTTGAGAAATGTTGTGAATATCTAG
CGAAACACCAAACATCCTCAGCTGACTAATGTGGTATCAGACTTTCTGGTTGCAAGGTAG
GGGTGAATAAGGCAGGATGGGGTGGGGGGTGGTGCTGGAAGAAGACATGGCATCAGGTT
GGGTTTGCAGGATACTGAAATTGTCTAGGGGCCTTGGCTGTGCAAAGAGCCTTCCGTC

Sequence 891

ACTTAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTACGCGGGATTCT
CAGATAGTTATGCGCAGCTCCAGGCACCAGATTCTGTGCTGGGTGCAGGCAGGACCTGGA
GGGCGTCCTCAAGTGTTGATCTGCAGGGACTGTCTTGATCTTCCAGCAGTGTCATTGTG
GGCAGTGACCTGAGCTTTCTGAGCCTATTTCCGCATCTGTAAAGTGCTATCCACTTCCA
CCTCCTGGGCTGTCGTGCAGATGTAGGAAGGAATTGCACTCACACACTCAGCATGAGACA
GGCGCTCAGTAAAAGCCCGTCCAGGGGATATGAGATCAGTGAGGGATAGGAAAGCAAGGG
TGGGTAGAAACAGCAAAACCCCTTCCCA

Sequence 892

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGCGNACAGGTACCAAGCATTG
GACACACAAAAATACAGGCAGCTTCTCCCTCAAGGAGGTCACAGGTGGGTGTGCCATA
GCAAAGCTGGGAGGAAGTTGTATGAAGGAGCCTGAAGACAATGGGGAGCTAGGGGAAAGT
TCTGAGTAGAAAGGAACATGTGGACAAAGGTTTGAAATGATGAAGACTGATTAGGAAGTT
CATATTATGAAGCATAATTCAAGCTTTCTCTACGATGTTCAAATCCCATCTCTCCTACTT
ACTAGANAGGTGACATTGGGCCAAGTTACTTATCTCCTCTGCTCCTGTTTATTTGTGTTG
AAAAACAGGGACCTCTCTCACAGTGTGATTNTGAAGACTGGACAAGAAAATGGGAGGTTT
TG

Sequence 893

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACAGTTTGGAAGTTT
AGGCAAAAGTCATTTCTTCCCTATATTTGTGTCATGCTTATCTCCTGTCTCTTTCTGTTT
ACAGATTAGCAATAAACTCCTTAAAACCCAAAAGGTTTGGGCTTCTGTTCCCTTCACTTG
CAGTCAGACATGGAGTTAGTGGTAGAAGAAACAGAAGGGGTAACTGCATGGTGACAGCT
ACTGAGGGGATGGATAGGAAAGCAGGCTGAGTCCCTGGGGCCAGTGGTTACCAAAGCCAA
GGAGAGGGCAAGGGGAGCCAGTGGGCCTGG

Sequence 894

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGCGGCAGGTACATCACCTGCTGA
GGGACATCCAGGACAAGGTCACCACTCTACAAAGGCAGTCACTACACGACACATTCC
GCTTCTGCCTGGTCACCAACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGT
TCTCCTCCAATTTGGACCCAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATG
CCTCATTCCATTGGCTGGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGG
AGTCATCAGTTTATCAACCAACAGCAGCTCCAGCACCCAGCACTTNTACCTGAATTTCA
CCATCACCACCTACCATATTCCAGGACAAAGCCAGCCAGGGCACCACCAATTACCAG
AGGAACAAAAGGAATATTGAGGGATGCGCTCAACCACTNTT

Sequence 895

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGGAGTAGTCTAAAACAA

TABLE 1
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GTGACTTTACTACTTATTCTTCTGCATGTCCTTACCAGCTTCTTACCTTCTTCAGGTTGA
GCATGAGATCAGCTTACAGGGGATGGGGTCCTTAAGGGTTTTTTCCATACTAGTTTTCA
GCCTTAACAATGAGTTTTCAACCCTTAAACATGAAAAATAAATAGTGCAGAAAGAGGGGAG
GATGGTAGAAATGCTTTAAAATTACCTTTTGTAAATTTTACTTTGTTTATGTTTTAATTG
TGCCTTGCTTATCAGGGAAGTCCTACAAACAAAGAACTCCACGGCTTCTTCAAGTCTTCC
AAGGGAACAGGGTCCCCCTGGTTCCTAAAAATCAATGGGAAGTAGGTTTTTGTAAACCAT
CTACTGGTCAANGGNAACCATTTCTACCTGGCGGTTTATTACACCTTGTAGGCTTCT
TTTTCTTTTTCATTTTAAAAATAATTTTT

Sequence 896

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGTTCATATCCCAGTTCTA
GAATCAGTTCATTTTCTAAGGAGTCCTGGTTCCTTTTATTGGAAACCAAATCTGGGCAC
CAGGTGTGCTCCCATTCTAGTCGTTTTCTGACCACATAACTGCTAACAAAGATGCTTCAC
TCTGGCTACACTGATGTGAACCTTGAACCTTAGCAGAAGAGCTCAGCTCTAGAGAACAAT
GAGCTCCTACATTACCTTTTTCTCAAAGAATAAGTAAGTCTAAGCAGAAAAAAATAT
GCAAAGAATTTTCAGTATGAATGAAATAAGACAAACCATCAGGCTTGCTGTATTGTAAC
CAACACAATATAGTTATAACAGATCTGTAGAAGGGATCCTTAGAATAAGAGAGGCATTTG
TCGGGGGGTCATCAGGGAGAATACTGGATAGNATCTT

Sequence 897

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTT
TTTTTTCTTCATGGCTACATCTGAACAGCTACTGAGGGATATATATGCCAAGTTTGGGA
GTTGCACAGCTTTTTTGAGGCCATTTNTAANATGACTAGGGACTGTAATTTCTNNTAAT
TTGGAATAGCCACAAGTTGTTGTAGCCAAGGTTTGNNGNGNTTTTAATACAATCTTAA
AATTTTAGTAGGCTTCTCATCTGTANATAGATTTGAAGGGGNGGGTTGCCCTCCACAC
CTGTGGGGTGTTTNTCGTAAGGNGGGACCAGAGACTTAGGA

Sequence 898

CCGCGNGGCGGCCNAGGTACACCAAATGGATTACAAGCAGCATCCAGCAGAAGACAGAC
CCCCAACCCCTGCCACAGGGCTCACACTCTACAAACCCTGAGGGCCTAGAAATCTGT
AAATGCATCGNCAAGCACTGGGGCTGATTTGCAGTAATTCTCTAAGCAAGGCAAACATGA
TCTAGCTTTGAAGGCAGCATGAAGGCAGCGGGTTGGNGAGAACAATCTNTCCTTAAGAGA
AGAAGAAACCTGGGGCGGANGGAGTTTTCCCCGG

Sequence 899

AGCTCCCCGCGGTGGCGGCCGAGGTACATGTTANGGTCTTGAGTTAATTGCTCTGTGGCT
GTGGATTTTTATTTGATGTTCTGATCTCTTCCCTTCCAGTTTGATAAATTAGTGTAGAAAG
TGGAAGAAAAACATGCCGGCGCAGCCTGTGCGCTTTGTGAGGTTAACAGAATGGAGTCCT
GCTCTGGCATCAGTCAGTGCTGTTGTCCGAACCCTCTGTGGCTCCTTCCCTCCCTCCCTGG
GGCCCAGAGCTGCAGACGCTAGAGGGGTA

Sequence 900

GCTNCACCGCGGTGGCGGCCGCCGGGCAGGTACCCTAAATGTTAACTGAGGGATGAGT
GAAACAATATCAGGATTAATAAATAAACACATTCTTGAATTCATCACTTAATAGAAGTG
GCCATTTGAATGCTGGCAGGTNGGAAGAAAAGAGGAGGACAAAGAACCCCAAAAGTTTGG
CATCATAACTACTGCCACAAG

Sequence 901

ATAGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTT
TGTATTTTTAGTAGAGATGGGGTTTACCGTGTTAGCCAGGATGGTCTCGATCTCCTGAC
CTTGTGATCTGCCTGCCTCGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGCG
CCTGGCCTTTCCAGGGTATTCTTTAACGTGGTCTTATTTGCCTTTTTGAATTTAAGAAA
ATCTATCAGCATCATATACCACCACTGGAATATAAATTTGAAAGAGAGTCCTGCAGATTA
TATACATGAATCTACTTAGGCCTAATAACCAAGCAGTCCTCAGTGGCAGATCAATGAAA
GTGAAACTAAAGGCAAGTGAAGGGTAGGAGAGATTGGCCAGT

Sequence 902

GGCAGGTACCCACCTCCTCGGTACCCACAGAGCCACCAAAGATTCCATGTCCCAGAGCT

TABLE 1

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TCCCATAGCAGACCTGAAAAGTCCATGACCTGAGCTTTGGCCATGGTAGTGGAGTGGAAC
AGGAAATAGTCCAGCAGAGGAGTGTGGGGGAAGGGGGCAGGAGAGGCACAAGAATAAGGG
AGACCTGGACTCTGCCTTTTTGGGAAAAGGAACCAAGCTCATAGCAATTTGGCTGATNAC
ACAATCAGATTTTTCCAGGTTAAGCTTCCTTTCTG

Sequence 903

CCGCGGTGGCGGCGAGGTACCATCTACTGAATGCCAGTTTTGATCTATTTCTAAATGG
AGCAAACCAATTCCATCTCCTAGAGCTGGAGACTGTATCCAGGCAGTGTGTGGACAGAAC
GGACAATCTTTCTGCCAAGGGCCTATTTGAGTGGAGCACCCCCACACGGGTTAGACGGG
TCGGCACGGGGCTGGTGGGTGAGGAAGTCAAGGGTCAGTGCAAGCTGCAGACCCCTCATTT
GGGGAACGCTCTCAGCACAATGCTCTTACAACACAGGGTGCCTCCAAAATGGAGTTCA
AGGAAAAAAGGCTAATGAGAAATAAAATCTGAAAAATAACTTAAAAAGTTTTGCT

Sequence 904

CCGGGCAGGTACGCGGGGGCCCTTTGGATACCTGCACTCCCCATCACCGCACTCCCCATC
GTGGCACTTCCCTTGTTCAGTTTTATGGAGTGTGCGTCTGGCTCCCCAACTAGACTTGA
ACCGCTTGGGTGCATAACTCGGGACTTGACCATTTGCGTCTCCCTACGGCCAGCTCAGCC
TCCGCACACAGGGACCTGCAGAGAGTGGATGTAGCCACTGCCCCAGCGTCCCTGGGCTCT
GAAGAGAAGCCATTGCCCTTCAAGAGCCACCCTCATTTCTGGGCACTGGTTTGAAAAA
ACGAAGAAAAAGAGACACCCAGCTCACCTCCA

Sequence 905

CTCCACCGCGGTGGCGGCCGCGCCGGGCAGGTACGCNNGGGCAACTCATTCATGATATTGGG
AGAAAAGCAAAGCAAAAAGTCAACAAAATCTCAAAACCTTTCTGCAGCAGCAGATGGCA
AACAGTGATCAGAGGAGAAGGACCCTTCCAGCATTAGAAGATTTCCAAAGGCTGTTCCAG
TAGGGGCTGTGGGCTTCTGGGAGCCAGATGCCCCCTGATGGTATATTTGAGTTTGTGAG
GTGGAGGCCAGGTGGCAAGANACTGCNNGCCAATGTCAATGAAAAGCCTGGGAGGAAAAA
GAGATTTCTGGGA

Sequence 906

AGGTACTTTGCTAACCAGCATTTTGGCTGTGTTATTGGCAGTTTTCAAATTTGAATTCTC
TTGCCATCTTTTGTAGAGTGCATAGACATTTAATTTTAAGAAATTTATAGAATTGGACTT
TTTTGTCTCTATACATTTGTAGGTCAGATGCACATTTGTTTCTGTTTCATCTTTCTTTA
AGAGCAAAAATGTAAAGTTTTGTATGTAGAGGATAATTGTATGATGATGATAAACTAATT
AGGTATTACAGTTTTCTAACGACAGAAATTTGTAATAATTAGGTAACCTGGTTTCATATTA
AAATATTTGATACATAGGCCGGGCATGGTGACTCATGCCTGTAATCCCAGCACTTTGAGA
GGC

Sequence 907

GGCAGGTACCACACCCATCTTACCCTCTTCCCTCTAGGTTCTGACATTCACTATCTTGG
TGGGAGGCTGGGGAGCACTATTGGGGATGAGGGTAAGGTGGAGTTTTATAAAGCTCTCCA
GGTGACTCAGAGACCACCTCATTCCACCTGGTCACAAATCCCTGAATGGGAAACAGGTA
CTTTTTTTTTTTTTTTTTTTTTTGCAAAGAATTGTAAATTTATTGTATAAGTATTGCA
GCTTTTCANAATGTCATCATTGCCACTAATGATTACTGATACACAACAAGCAGTTTCTTC
AGGCCTGTGGATTGGCATC

Sequence 908

AGGTACTTCCCTGAGCAGTGAAGTGGATGCCAGACCAATGGCCAGTGCTAATATCAAT
GCAATGATCCCAATGACGATGATTGGA:AAAACCTTCAATGGCAGCAGTGACAGGATCTGT
GCAGCAACAGCATCTGCATCTGGTGCAACAGGACTTATTTCAAATCATCAAGGCCAAAA
AGCGATCGGAATGAGAAGGGGGCTTCAACAGCAGGCGGATCATTTTCCCCATGGTGACT
ATTTCAGGACCTCTGACATCCGGCTCCGCCTCCACCTCTACCTCATAATTCCCGAGTCCC
AAAAATGTAGATGGCACCACGGAAGAGATAGTAGGCCACAGTGTTACTGGCTTCCCATTA

Sequence 909

AGGTACAGCAAATTAACCCCAATAACAGGAGGAGGAAAAACACCTAATTAATATAAAAATT
TCAAGGATATGTTAAACAAACAAACAATTACAAGAACTCCTGTCAAGTTAAACAGAGAG
AGAGAGAGACAGGGAGAACCCTAACAGGAAAGAGAAAAAGATATACAAGCTATCCCGCA

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GAAATTA AAAAGAGACTAAGAATATTACAAACAAC TTTATTTT CATT TAGATGAAATGGAC
AAATTTATTTT AAAACACAATTCGCCAAAATTGACAGAAGTGGAAGTAGAAAATCTATTT
CTGTATTTATTAAGATACTGAATCTATAATTAAAAATATCTTCACACAGAAAATTACAG
TTTCAAATG

Sequence 910

AGGTACGATCTGAAGAAATGAAAGGCATTGAACTTTGGTGGGTAAATTGGGTCTTTTCCA
GCAAAGGTATAAATCCTTAAAAGCCAAGATCATATTGTTTGATTTCTCTGGGCTCTCTGC
TGGATACAGTGCCAAGTCCATAACTGTATACCCCATGGACACTCTATGTTAAATGGAGAT
TAATGTGTAAGAGGTGTTTTTTTTTTGTTTTGTTTTGTTTTTAATTTGGAAAAGAAGC
TTAAAGACCACAATGGGTGTGGCATTGGCTCGACCCACAGATCTGCTTAGTCTCAGACAG
GCACTTTGAACCAGTCTTTTAAAATTGCGTCACAACAAC

Sequence 911

AGGTACAGATCACTATGGCTTGTCTTTTCTCCTAACTAATGTAAAATTCCTAATAATTCA
TAAC TTGTATGAGGACAACAGTTGTGTGAATCTACCCTGGTCTTCTGATNATTTTTAAT
TTTTNATTTTTTTTTTTTTTGGGGACAGAGTCGTGCTGTTATCGCCCGGGCTGGAGTGCA
GTGGCATGATCTCGGCTCACTGCAACCTCCACCTCCAGGTTCCAGCAACTCTCCTGCCT
CAGCTTCCCGAGTAGCTGGAATTACTGGTGCCCACTACCACACCCGGCTAATTTTTTGTA
TTTTAGTAGAGATGGGGTTTCACCATGTTGGCCAGGCTGGTCTTGGACTC

Sequence 912

AGGTACAAATTGTCGTTTTTATTCCTCTTATTGGGATATCATTTTAAAACTTTATTGGG
TTTTATTGTTGTTGTTTGATCCCTAACCTACAAAGAGCCTTCCTATTCCCCTCGCTGT
TGGAGCAAACCATTAACCTTACTTCCAGCAAGCAAAGTGCTTTGACTTCTTGCTTCAGT
CATCAGCCAGCAAGAGGGAACAAAAC TGTCTTTTGCATTTTGCCGCTGAGATATGGCAT
TGCACTGCTTATA

Sequence 913

TGGCCAGNTCAAATNACAACCCCCCAACCCCCCCCCCCCCCCCCCACAAACAGACAAGGA
CACAGNTACCANACAATGGATGTNCAGGNANTNGATATCAGCAGATATNTTAGNCCTNT
AGATAGGCTAATTTNANTNAGCAAAGGAAAGAGGAGGTANCATTAGNCAGATGGGNTATT
NACCTCTGAATTAGATGGCACTTACCCANCTTCTGGNACAGNCCTGCTGGNGGCGTCTAG
ACTAGTGATCCCGGCTGANGATCGATTAACTATCATCCGCGACCTCAGGGGGGGCCGGAC
CCACTTTTGTCTTA

Sequence 914

CGAGGTACGCGGGACACTGGTGGGGGAGAGTCCGACGCGCCTGGCTAGGAGCGCCGACCG
CAGGGCCTCTACGGACCTTACTAGAAAAATGAAACCTGATGAAACTCCTATGTTTGACCC
AAGTCTACTCAAAGAAGTGGAAGTGGAGTCAGAATACAGCTACATTTTCTCCAGCCATTTT
CCCAACACATCCTGGAGAAGGCTTGGTTTTTGAGGCTTCATGCGAGAAAGGGGAATGGGGA
ATGGCTGCTTAACGGCATGTCTTTTTTTTTTTGAGACGGAGTCTTGCTCTGT

Sequence 915

CGCCCGGGCAGGTACGCGGGGACTTGACTTAACTCTGGGGCCCGGGAGGCCGCCGGTTT
TCTCCCGCTTGCCGGGGTGGTCCTCTTCCCTTTGTCGGACCAAAGAAGTAAACACTGTG
TGGAGAGGGACTGCGTGTTTGGAGGGAAATGGGAATGTACCT

Sequence 916

CCCCGCGTCCGCTCTCTGTGCGGGGTCCCCTCCATCTCGCTGCTGCTGAAGGCCGCGAGGG
CGGCGGCGATGGCGGAGGCGGCGCTGTTGCTGCTGCTGAGGCGGCGGCGGAGCGGGACG
CTAGGGAAAAGCTGGCTCTCTGGGATCGGAGACCGGACACGACGGCGCCGCTGACCGACA
GGCAGACGGACTCGGTATTGGAGCTGAAGGCGGCGGCAGAGAACTTGCCGGTGCCAGCTG
AGCTTCCAATTGAAGACTTGTGCAGTTTAACTCCAGTCACTGCCATTGAAGTGAAGT
CAGTAGTGCCTGAATCTACAGAAGACATTCTTGAAGGGCTTCACTTCTTAGGAATGG
AAGAAGAAAGAAATTGAAACCGCACAGCAGTTTTTCTCATGTTTGCAAAGCTGCAAACT
CAGATGGATCAAGATGAAGGAATAAATATAGGAGCAGTGTGATGCTATATTGAATGATG
TAAACAGTGCTCTTCAGCATCTGGAGTC

TABLE 1

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Sequence 917

GGCTGTGGCCAAGAAACGCAGGGACCGCTCTCTCCCCGGGCTTTCGAAATCTTCACAGA
CAATAAACCTATGTCTTTAAGGCCAAGGATGAGAAGAATGCAGAAGAATGGCTCCAGTG
CATCAACGTGGCAGTTGCCCAAGCCAAAGAAAGGAAAGTAGAGAAGTAACCACATATCT
GTAGGGAATTTATAAGTCAGCCATGACAATTATACACCACAGGCATTGTATTATCATTGC
CAATGTCAAGAAAAAGAGCTAAATTTACCAAGCCATGGTTGGNTTTTTACTAAATACCAT
GGGAATTTGTTGGTCCTTTAAGAAGAAGGGCCTTAAAATGGCAGGGATTTCTTAGTNAAA
TGNCAATACTCTAACAGCTTTAGTATTGACTTTAGAATATATCTGATGCCACAAAAATT
AAATAAAAGGGNTTNGAGGAGGTTTGCCCNAAATAAGTGNGGGGCCCGGAGGGGAA

Sequence 918

AGTCNCCACGCGTCCGCGGACGCGTGGGCGAGTGCCAGTGACCCTTTACGGGGGTAGCT
TTTACTCCGCACTCTCAGCCCCTGCCTACCCCTCCCTCAAGGCCCGGATTGACCATTTC
CTGCTCCAGCACTCCATCCCTGGCTGCCACCTGCTTGGGAGAGCACAGACGGCATTGGCA
GTGATCCCTTCTTCATTGTTCTGCCCTCTCAGAAAAGGAAGATAGAGCAGGCTGAACAT
GTCCAGACAGTAACCTTGGTGTAATGCTTCCTGTTTTCTGCCACAAGCCCTTTGGTC
TTACCCACTACCTCAGAGCACACTGCTAAGAAAATGAAAGCCACCAATGAGCCCAGCCTG
ACACATATGGGACTGCTCGACAGGTCCACTGTCCCACGAGCAGAAGCTGGTCACAAAGCT
TGGGAAAT

Sequence 919

GGGAGTCGACCACGCGTCCGCGGACGCGTGGGCGAGTGCCAGTGACCCTTTACGGGGG
TAGCTTTTACTCCGCACTCTCAGCCCCTGCCTACCCCTCCCTCAAGGCCCGGATTGACC
ATTCCTGCTCCAGCACTCCATCCCTGGCTGCCACCTGCTTGGGAGAGCACAGACGGCAT
TGGCAGTGATCCCTTCTTCATTGTTCTGCCCTCTCAGAAAAGGAAGATAGAGCAGGCTG
AACATGTCCCAGACAGTAACCTTGGTGTAATGCTTCCTGTTTTCTGCCACAAGCCCTT
TGGTCTTACCCACTACCTCAGAGCACACTGCTAAGAAAATGAAAGCCACCAATGAGCCCA
GCCTGACACATATGGACTGCTCGACAGGTNCACTGTCCCACGAGCAGAAGCTTGTCAAA
AGCTTGGA

Sequence 920

AGTCGCCCCGCGTCCGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGCGGACGCG
TGGGGGATGGATGACAGTCCACCAGAAAAAAGTTAGTGGAGCGGGGACAAGCAGGGTTGC
AGAGTGGAAGAAAAATGTTCTGTGAGAAGAACTGTCAAAGAGTNTGAAGAGAAAAAG
GAACAGGGTGAATTTGANGCCCTACAAGAAAAACAGGAGACCATTCAACAGGAGACGCCC
AGGGAGCAGGTGGCTTTGTGGGCCTGATGTCCAAGAAAGAAGTNCTGGTGGTAAACAGAG
ACTTGTGGATTGCAAGCTACTGTTGTCTTTCTATTGAA

Sequence 921

TGGAGTCGCCACGCGTCCGGCCAGGCGTGCCTGGAAATCCGCTTTCGCAGCGCCCCCTC
GTAGCCCGCCTCCGCCCCGAGAAGGCGTTCCCTGGACAGAGAAGCGGGCGCGGGGGCG
GGCGCGTGGGGCCTTGCCGGAGAACCTGACTCTCCGCAGCAGCAGTGGAAGCCAGAGTGA
CGCGTTGTGTTGAACACCAGTTTTCTGGAGCGCTGTGTGTTCTCAACAGCTGAGCAGTCT
GTTTCTCCAATCAGGTTTCAAAGCCACTTCAACTGCACTGGCCCCCTGTGGGTCACTGCTG
CACC GCCCTGGCCATGTGGGTCCCTGAGGAGCGACCTGCCGGGGCCACCTGGCTGGACG
AAAAAGACACACTTTGGGACTTAAGCCGTGAGAAAAAACTTCATCAGTAAGAAACAAGT
CAATAGACAAGTAAAAGACTAGGAGAAAAATATGCATAAAACATAAAAAGTGACTTGGATT
CCTGATCTTGGAGTATTTAAAGAATTCCTATAACTTANAAAAGGTTTCAAGTTTTTTNAA
ATGAGCAAAAANGGTTTGGGTAA

Sequence 922

TCCGCAGGCTGGGGGATCCCAAAGGGTGCCTCCAGCCCCCAACCCAGGCACTGGGACTC
TGGTGGCACCCTGGGTGGCAGGCAAGCCTTGAAATCAAGTGCACGAGCCTTGGAAGGAG
GACCGGGAGAGTTATGGCATTATGAATGAAGAAGAGAAAGAGAATCACTCGGATGGGAA
AAGTTAACTGGATTGTTCCACCTGCATGGATCACCGGGTAACTGCAGTGGGACCGAGG
GGGCGAGGCTGCGGGCTGGGGGATGTGCCGGGTTCTTGTGTTGCCACGAACCCAGAGA

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GGGAGAGGAAGAAGATGGAAAGAAAAAGGAAAAAGGGAAGGAAAGTAAGAGGGGAGAGAG
GGGGAAAACTTGAGGATGAAAGAAGAGACAGAAGAAAGAAGACCTTGAGAGAGGGGA
GGAGAAAGGAAAGGAAGCNGGAAGGAGGAATTGGAAAGTGAAGGAAAGGGGGGAAACCAG
GCNGAGAAAGAAAAGAGAAAGGGGGGAAGGGAAAGAAGAAAGGGGAAAAGNAAGGGGGGGN
GGTTGAAAATCAACNCGAAAAAAGAGG

Sequence 923

CNCGCGTCCGGCTGTGATGAATGAGGTCTAGGAAATAATTTGCATGTGTCTTGGGGGACA
CAACAGTAACNGAGAGGAAATACATTATTACAGCAACTTGCGACGTACTAATACCTGTCA
GTGTTGGCCCCCGTAAGGTATGTAAGGCACCTGNGANGTGCCCAGTNAGTNCCTTGGTGN
AAGGCCAACATGTACTAGTTATGTAAGTATTGGTGTCTGCTTTAAAAAGGAGACCCAGA
CTTCACCTGTCTCTTTAAACATTTGAGAACAGTGTTACTCTGAGCAGTTGGGCCACCTT
CACCTTATCCGACAGCTGACTGTTGGATGTGTCCATTGTCGCCAGTTTGGCTGTTGCCCG
GACAGGACAGGACCTCCATTGGGCGCAGCAGCAGGTGGCAGGGGGTGTGGCTTGAGGGTG
GGTGGCAAGCGT

Sequence 924

CCCCGCGTCCGCACAGATCCTTGAGCTCCGCTGCAGGATAGTACAGTTTTACCGCAGAGG
GAATCTGGAACAGTGGAATCATGTGTCTGCCCTGTGTATTGCAGTTTGTATTGCCACAAG
CTATATTTATACCAGTGTCAACCCTTTTCTGTAGAATATACTAATAAATCTGTGCCAACT
CTACCTTCTCACTTTTACCTCTGACGTCACTCTTTTTTCTGAAAGAGGTAATAATTCTA
GTTTTGATAGACTCTGAGGATTATGTGAACAGGACATTTTTTCACTTGTGAATTAATGCT
ATACTGTCAAGGTACTTGCTTGTGTCTGAACCTCTAGTGCATTATGATTTTGTAGACCCA
TGTGAAATTTAATAAGATACGTTTTTTTTCTTTCTTTGGTGTGGTAGTGCAGCAACAGT
TTGGTCTGCATTTGTTAGAAGTTTAACTCCTAACAAACCAAAGACCTATTTA

Sequence 925

GCGTCCGACCCCAAAGGGAGGGACCACATTGCACACACTGTAAGAAATGCATTTCCGAG
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CGCCCCCGTCAGCCCCTGGCGGTGGGAGGTGAGAGCGAGTGGTTTAAAGTGCTGATTACC
ACCACCGGCCCCCCCCCTTTGTCCAGCTGGGACACGGAATGGCCGCGGGCCTCCTCCCCCT
CCCCTCCAGCCTCTCCACCAGCCCCTCCAGTCAACCCTCATCGCCGTGCCCCCCCCAGAGC
TAGAGAGATGGGGCCCCCTGCGTGGCCCGAGGGGCAGAGCTGGGCGTCACTTCGCAAGCGT
CCTGCCCTGCCGGGGCGCGGGGGTGGGCTCTGGGGAAGCCGGTGCGCCCCCCACGCCTNC
GCTGCCAGTGCCCTACATTCTGGAGCGACCCCCCTCCCTGGTGCCTCCCAGCGAAGGGGG
ACCCGC

Sequence 926

AGACAGCTCAAGCCTTGCCACTTCGGGCTTCTCACTGCAGCTGGGCTTGGACTTCGGAGT
TTTGCCATTGCCAGTGGGACGTCTGAGACTTTCTCCTTCAAGTACTTGGCAGATCACTCT
CTTAGCAGGTAGGTGCCGCAGACCTGCGGGTTAAGAGGTGGGGTGGGGGGCAGTGCTTG
CCAAGGCCCTAACTGGGAGCGCTGGGTGAGGGGAACAACCCACTTTGGAGGGTTCTCTG
AGAGATAGATACACCCCATATCCTGGGCCAGCTCGTGCACACAGCTGGAGGTCCAGAGA
CCCAGTCCCCTCTGCTCCGTCAAGCAAGTTCCAAGAAGTTGAGCAGAGACCCCTTCTGGGA
GCCTGGCGGGGTGCAGCGGCCTCCCCTGCGGGGCCTGTACCCCGCGGGGCGGTGCAAA
CGCCTCTGGCGCCTNTNTGCGCGGGAGGGGAGATAAGCGTCTGAGCCAGGGAAAGCCGCC
GGGCTAAAACCCGCCTTTTCCGGGGGCCCC

Sequence 927

CGCGTCCGGTCAATACAAATGTCATTGTTTGGGACCCGTTTCTAAATACATCTGCTGCCT
ACATTCTGCTCACACATACGCTTGACGCTTTGAGGCAGGAGAGGGTAGTTGTGCTTCCC
TAGGAAGAGTGTCTTCAAAGTGTTCTTCACTCTTTTTGCCCTGCTTGGTTTCTTCATT
GTTTCTTTGGACACAGATTCTGGAÁAACAGAATTATTCTTCATAGGCTTTATCATCATGG
GATTCTTCTTTTATATACTGATTACAAGACTGACACCTATCAAAGTATGATGTGAATCTG
ATTCTGACAGCTGTCACTGGAAGCGTCNGTGAATGTTCTTGGTAGCTGTGTGGTGGCCG
ATTTGGAATCCTCTCGATCTGCATGCTCTGTGTTGGACTAGTGCTGGGGGTCTCATCTC

TABLE 1

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GGTCANGTGACTTTCTTTACTCCACTGGGAAACCTAAAGAATTTTTTCATGATGATTGGG
TGTATTCTGGGTCACTTTCTCTTGCCATAAGCTATNCTCATTCCAGTAGTTT

Sequence 928

CCACGCGTCCGGACGCTGCGTGGAAGCGGCGGAGCCGGAGGGAAGCAAAGGACCGTCTGC
GCTGCTGTCCCCGCCCGCGCTCTGCGCCCTCGTCCCTGGCGGTGCTCCGAAGCTC
AGCCCTCTTGCTGCCCCGGAGCTGTCCCGGGCTAGCCGAGAAGAGAGCGGCCGGCAAGT
TTGGGCGCGCGCAGGCGGGCGGGCCGCGGGCACTGGGCGCCTCGCTGGGGCGGGGGGAGGT
GGCTACCGCTCCCGGCTTGCGCTCCCGCGCGCACTTCGGCGATGGCTTTTTCCGCCGCGG
CGACGGCTGCGCCTCGGTCCCGCGGCTCCCGCTTCTCTCTCGGGACTCCTGCTACCT
NTGTGCCGCGCCTTCAACCTAAGACGTGGACAGTCTGCCGAGTACTCTGGCCCCGAGG
GGAAGTTA

Sequence 929

CGACGGCCANGGCGCCTCCGAGTTCGCCGCGAGGACTCGGAGGGCCAGGAGGGCGCGACC
TGGGTGGATATTTTTGTTGGACGGCGCAACTCTTGGGTGGCCCGGGAGCGGCGGAAACC
GAGCGAGAGAACCAGGAGGCGCTGCGCAGAAGGAGGCCCGGGGGCTCCGAGGCGTTGAGG
GGCTCGATCTGCGTTCTGGGGTTGGCAGCCGAGAGGCCGCGGTCCCTGAGTGCCAGAGGT
GGTGGTGTGCTTATCTTCTGGAACCCCATGCAGCCAGATCCAGGCCCTAGCGGGGCTGG
GGCCTGCTGCCGATTCTGCCCTGCAGTCACAGTGCCCTGAGGGGGCAGGGGACGCGGT
GATGTACGCCTCCACTGAGTGCAAGGCGGAGGTGACGCCCTCCAGCATGGCAACCGCAC
CTCAGCTACACCCTGNAGGGATCATACCAAGCAGGCCTTTGG

Sequence 930

CGTCCGCTTTNAGACCGGAAGACATTTAAAGCCAGTTTACGTACANGAAGCATGGTTTT
AGATTAAGTGCCTGTTGGTACAGCTAGAAACATTGCAGCCCTATCGCTTATTTATCTTGC
ATGTTGCTCTGCTTTGCTATGAAAAATATCGTTTTATGATAAAACTTGTGAATTTTAT
ATGTATTCGGTTATACTCTTAGGGAAAAATAAGAAATTAGAGTGAGAGAAAGTGCTATG
TATATTAGGCTTTCAGATTTTATAGATATAGGCTTAAGGGAGGGTGGAGGTTCTTTTTT
AAGTTGAATGACTACTTAAATTTGTTGATGTGAATTTAAGTTTAAAGATTATTATTAAT
TAACTCTTCTCTTTGTCTTTGCATTTACCTTCCAGATGTTCCAGCCTATCATTTTACTT
ATTCTCATTCTTGATTATTTTCATCACTTTCTTACACAACAATATTTAACTTGNCTTC
CTTTTTACACTGGTTTTTGGTAC

Sequence 931

CACGCGTCCGTGGAGTATGTGCCATCTGCCAAAGTGGAGGTGGTGGAGGAGCGCCAGGCC
ATCCCTCTAGACGAGAACGAGGGCATCTATGTGCAGGATGTCAAGACCGGAAAGGTGCGC
GCTGTGATTGGAAGCACCTACATGCTGACCCAGGACGAAGTCTGTGGGAGAAAGAGCTG
CCTCCCGGGGTGGAGGAGCTGCTGAACAAGGGGCGAGGACCCTCTGGCAGACAGGGGTGAG
AAGGACACAGCTAAGAGCCTCCAGCCCTTGGCGCCCCGGAACAAGACCCGTGTGGTCAAG
CTACCCGCGTGCCCCAC

Sequence 932

GGTTCGCCCACGCGTCCGCCCTGCTACCCTGGGAGAAGCCTCAGCTTTCTGGGCAGAGTT
TGCTCCCTGTCAATTTATACTCTCAGGCTTTATACATTTACACAGTAAGTTCTCCCTCCT
GGAGGGTTAAAAGGAATAATTTCAACAGGGTGAAGGCCTGGCACGGTGGCTCACAAGTGT
AATCCAAGGACTTTGGGAGGCTGAGGTGGGTGGATCACCTGAGGTGAGGAATTTGAGACC
AGCCTGGCCAACCTTGGTGAAACCCCTGTCTCTACTAAAAACAAAAATTAGCCAGGTGAGGT
GGCACACACCTATAGCCCCAGCTACTGGGGGAGGCTGAGGCAGGAGAATTGCTTGAACTT
GGGAGGCAGAGGTTACAGTGAGCTGAGATGGCACCCTGCACTCCAGCCTAGGTGACAAA
GCAGCAAGACGCATTCTNAAAACAAAACANCAACAACAACAAAAAACGGGAAAAACA

Sequence 933

CNCGCGTCCGGTCCAAGTGTCTCTCTGGGTTTTCTCTGCTTTTTATTTGGTGATCCTG
GTTCTTTTCGGCCGTTACAGTCATTGTGTGCACCTCAGCTGAAAGTTCGTGCTACTTCTGT
GGCCTCTCGTGGCTGGCGGCAGGTGGGGTGATGGTGCTGGCCTCGGCGCTGCTGTGTGTG
ATTGTGTCTGTTCTGACCAACGTGCTCGTGGGTGGAAACACCCCAAGGAAGAACCCCATG

TABLE 1

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CATCCCAGCTCAAGGTGGTCAGAGCTAGACCTTCTTATTCTGTTGGGGACGGCGGGGCCAC
GTCTTGAGCCTGGGCGCCAGCAGCTTCGTGGAGGAGGAGCACCAGACCTGGTACTTCCTT
GTGAACACCCTGTGTCTAGCTCTGAGCCAAGAAACCTACAGAACTACTTT

Sequence 934

TCGCCCCGCGTCCGGTTATTTTACCCAGAAGCCGGATAGAGAAAATATTACAGAGAAAAT
CACATATCACATGGGCTCGAAAGATGTAGAGGTTTTTGACAAATGAAGAACAACCATAAC
AGGTAGAGGGAACACCATGAACCAGGGCATGAACTGAAAGTGCATAACATATTCTAGAG
AGAGAAGGGTGTGGGCATGAGTTAGGGCTGGAACAAACAGGTTGGAAACAGATAAGTAAGG
GTCTCAAATGCAATGTCAAAGAGCTTGCAGTTTATTTTCCAGGCAATGAGTAGGCAGCCA
AAAAAAAAAAGTAAGGATGTTTTTTTTTTTTTCCCATGGCATCATATTTAAGAGGATGG
ATTTAAATTGTGTGAGACCAAAGCATAGAGACTAGATAAGAGGGCGCATCATTATTTCAA
AAGAAATAATGAAGATCCAATGAAGGAAGTGGGAAATTAATAAGGGGAAGAGAGGTA

Sequence 935

CCGTCCGGTTTTTTGTCTCAGAGTCTTCAGGCTGTACAGGAAATGTGGTGCCGGCATCT
GCTTCTGACGGAGTCTCACTCTGTCGCTCAGGCTGGAGTGCAGTGGCATGATCTCGGCTC
ACTGCAACGTCCGCCTCCTGGGTTCAAGCCATTCTTCTGCCTCAGCCTCCCGAGTAGGTG
GGAATACAGTGGCCATGTGTCTGAGATCTAACCAAGGGAACATGGGTGGAAGTATGTAA
GCCACTTTGACACCACAAAACCTCCCATGGGTTCTCTCTCTTCTCTGTTGTTACTTGT
TGGATGGAGAAGATGCTGAGAAATAGTGGGAAGTCCAGGGGATGGAAGAACCAGGATT
CTGAATACTCCATTGGACCTTACGTTTTGGAATCAGGNATGATGCTGGCCTTCATAAAAT
GAGTTATGGAGAAAGTCCCTCTTTTTCTGGTGTTTGGAAACANGTTTTCAGAAANGAATTT
GNTACCCAGCTCCNTCTTTTGTACC

Sequence 936

CCGGTGAGCGCCCCGCGCGCTCAGCCGCCAGATCAACCTTAGCGCTGGGGCGCGGGCTGG
GGTCGCCAGGCGGTGCGTTCTGCCCGCGCGGGGCTGAGAGTTAGGGGCCGGGGCCGGATC
CGGGGCCGGGGTCCGCGCCGCTAGCCGCCAGCAGCGCAGTCCGGGCCGCCACCTGCACC
CTCCGCCCTGTTTCTGCACCCGTCTGGGTTCTTGTGCCCGCGCCGCAAGCCTTCCCGAG
CTCAGGGTGGTGAGCTGCGGAGACCCGTGATAATTCTGTTAACTAATTCAACAAACGGGAC
CCTTCTGTGTGCCAGAAACCGCAAGCAGTTGCTAACCAGTGGGACAANGCGGATTGGAA
GAGCGGGAAGTCTGGCCAGAGCAAGTGTGACACTTCCCTCTTGACCATGAACTCT
NGGGTGTCTGCATTGCTGATGGC

Sequence 937

GTCCGCCGGCATGAGCTGTCCATGAAGGATGAGCTGCTTCAGTTCTACACCAGCGCTGCG
GAGGAGAGTGAGCCCGAGTCCGTTTGCTCAACCCCGTTGAAGAGGAATGAGTCGTCTCC
TCAGTCCAGAATTACTTTTCAATTTGGATTCTCTTCAAAGAAGCTGAAAGACCTTGAAGAG
GAGAATGTTGTAATTCGATCCGAGGCCAGCCAGCTGAAGACAGAGACCATCACCTATGAG
GAGAAGGAGCAGCAGCTGGTCAATGACTGCGTGAAGGAGCTGAGGGATGCCAATGTCCAG
ATTGCTAGTATCTCAGAGGAACTGGCCAAGAAGACGGAAGATGCTNTCCGCCAGCAATGA
GGAGATCACACA

Sequence 938

CCCGCGTCCGGAATTCCAGTTGTGGATGAAGGAAATGGTGTTATGACTGCCTCAAGGTTT
TGTAAGCAAGTCATAGGGAACCAAAAGAGGAATCTTGTTTTCTCAGAGGTCATGCCAACT
CCAACTCCCGTTCCCTAAACTGTCTCTGAGCCATAGACTAGTAATGGACTCTTCAAGCTC
TACCATTAGGTATCTTTTAAAGAAAGCTGGTTATTACTATTTATTCATTTTTTCTCTTC
TGTGCAAGTGCAAAAGATATGAAACATCGGCTAGGTTTCTGCTGCAAAAATCTGATTCTT
GTGAACACAATTCTTCCACAACAAGAGCAAAAGTGGTTATTTGCCAGAGAGTGAGCC
AAGAGGAAGTCAAGAAATGGGCTGAATCACTGGAAAACCTGATTAGTCATGGAATGTGGG
CTGGCAGCTTTCAAAGCTTTCTTGAAGTCTGAATATAGTGAGGAGGAATATTGACTTCTG
GATCAAGCTGTGNAAGAGTACAAGAAAATC

Sequence 939

CGTCCGGCCGGCGACGGCGGCAGTGGCGGCCCGGCCTGCAGGAGCCCGACGGGGTCTCTG

TABLE 1

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CCATGGGGGAGTGAACGCGCCTGCACCCGCTGTTCCGCGGCAGCGGCGAGACATGAGGAGA
CCCCGCGACAGGGGCGAGCGGCGGCGGCTCGTGAGCCCCGGGATGGAGGAGAAATACGGCG
GGGACGTGCTGGCCGCGCCCGGCGGCGGCGGCGGCTTGGGCCGCTGGACGTACCCAGCG
CTCGATTAACAAAATATATTGTGTTACTATGTTTCACTAAATTTTTGAAGGCTGTGGGAC
TTTTCGAATCATATGATCTCCTAAAAGCTGTTACATTGTTTCACTTTTATATTA
AACTTGGGACTGCATTTTTATGGTTTTGTTTCAAAGCCATTTCTTCTGGGAAAAC
ATTACCAAACACCAGATAATTGGATCACTAAAATTCCTGGTAGAAAAGAATTTAAAGAC
AAA

Sequence 940

TCCGAAAGNGTACTGCCATGANCCGAGATAGGAGACACATAAGAGGACAGCAGAAGCCCT
GGCCCTGGGGAGGCTTCTCGGAAGGCCTGGCTTCACAGGCAGGCCACAGAAGGATATCGC
GGGACCGTGCACCCAAAGCAAGATAGTGGCTTCCCTTTTATATCCAATCTAATCCTGAT
TGGATGTCCCTGAGGCCCCCTGCTGGAAACAGCCATAGGAGAGGGCCCATGGCAGTAGGGG
AAAGAAGGAAGAAATCCCTGCAACAAAACCTCAGCTAACTTTGATTTGTGTATTGTTT
ACATAATAATTTTAAAGGTACATAATGTGTAAAGAGTTTGGATAGAACCCTCTCTTCATA
CTATGGTTTTCGTAAAGGATCTGTTGTTGTTACGGATTCATTTTTTCCCTCTATTTTTAT
AAAGAGCAGCAGAGTTGTCTTCTCAAACGGCTGCCAAGCTCTGCTTCTTGGAAGAT

Sequence 941

CCCGGTCTGCGGGTCCGGCGCGGGCGGGCGGCGGCGGCGGCGAGTGGCGCTNTCAGGTGATTGA
CTGGCCAGCTGCCTGAAGGAGCGCCAGGTCTCTTGGCTGGCAGGTGGCGAAGCCCATTG
GGGCGGCGGTGCAGACCCGCGGCGGCGGCGGCTGCGGCGGTCTGGCTCGGGAGGCGTTCTCTGG
GGCCAAGGCCATGGCCCCGCGGCTGCAGCTGGAGAAGGCGGCCTGGCGCTGGGCGGAGAC
GGTGCGGCCCCGAGGAGGTGTCNAGGAGCACATCGAGACCGCTTACCGCATCTGGCTGGA
GCCCTGCATTGCGGCGGTTGTGCAGACGAAACTGCAAAGGAAATCCGAATTGCTTGGTTG
G

Sequence 942

CACCCACCCAGATGCCGCTGGCACCAAGCGCAGCCGCCAGCTGCCGCACTTTCCACTT
GTATTGATCACCTATNANNCCCGCGCANAAACGGCTACGNCCGAGCGGACCGCGGCCAGCG
CGCCAGCCCTTGGCACNCCCTNAGGAGCAGAAAGGGCTCCGGGAGGAAACTCCTTGGGAGC
GCCCTGTCCGGANTGCCCTTTGCTCTCTGCAGTGTGATTTCTTTCTGTTCTGGGAGGAGG
AGGAGGAGGANGAAGAGGAGGANGAGGNAGAACGANANNCTGCCCTTCCAGAGGTTGGTG
AGGGAGATCGCGCATGGATTTNAAAACCNACCTGAGGTTTCAGAGCGCAGCCATCGGTTG
CNCTGCANGAGGCTAGCGAAGCGTACCTGGTGGNTCTGTTGAAAGA

Sequence 943

GTCCGGTTTTGAAACAGAAATGTAGGCATTAGACTTCCTGGGCGGCAGACAAACCAAAGA
GCGGAAATTCATGCAGCCTGCAAAGCCATTGAACAAGCAAAGACTCAAACATCAATAAA
CTGGTTCTGTATACAGACAGTATGTTTACGATAAATGGTAAGCTTTCACATTTGATTTCT
TCTGTTTTTCCAGTAACTGTGAAGGGAAATTGGTAGGAGGTGTTGTAACAGGGCAGGACC
CAAATGGGAACGGGGGGATGACATTGGTTTGTCAAGTACCGAGCAAAGAGTGAGGATTTT
GGAGTCTCCCTTCTGCTGCTCTGATGTTTTCCACATGCTTATTTCTTTGCCAGGCACTGG
AGATGCAGTCAAGAAGTGGGAAGTGGCTCTTACTTCTAGTCTGTGTGTGTATAAGTCACT
TAAGATGGCCGTGTTGACTGCTTCTTTGGGAAATGCCCTGAATAGGAGCATGTAGGGGAT
GCTTACCGAGGCTGGGGAAGG

Sequence 944

GCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGCGGGCCCGACCCGAGCCCGACC
CCGAGCCCAAGCCCGAGCCGAGCCCGAGCGAGACCCGAGCCCGAGCCCGAGCCCGAGCGGACC
CCCGGTGCGGCGCGGCTACCCCGCGGAGGCGGNGGGCGCGGGGCGCGCTCTGAGGCCCG
GGGGATGCGCCCGCCTCGACCATGGGCGCCGCGCCTCCAGGAGGAGGGCGCTGAGGA
GCGAGGCCATGTCCTCGGTGGCGGCCAAAGTGCCGAGCAGCCGAGCGTTTGGAGAGNACC
TGTTCCAGAGTCAACCTGAGAACCAGCGGCCGAGATCACCTGCTGGCTGATGCCTA
CTCTGGCCACGACGGGTCCCCGAGATGCAGCCGGCCCCCAGAACAAGCGCCGCTGTG

TABLE 1
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CCTCGTTCTCCAACGGCTGCTACGAGGGCAAGCCTTCTCAGAGGAAGCCCAAGCATTAGG
AAGCCCGCAGGC

Sequence 945

CGCGTCCGGCACGGGGGAGTCTGTGGTGGCCNGTTTACCTGGGCATCTGGCTGAGAGGAA
GAAAGGCCAACCTGATCCTGAGGGGACCCAGACATATCCTTTGCACTGTCCCTAGAGGGG
CGATGAGCTTTGAGCATTAAAAAATGGTGAAGGGGGGAAATATTTGAACCAAAGACCA
AATGTTAGGCCGCCGTTATATTTGCAGAAGCTTTGAGAACCATGCGTATAGCCTCCTGCA
TTCTCCCCTCTCCTAGGAGCTCTTTGTCTCTGTCTTACGAGGCGTCATACAGAGGCAG
TGGGGTGGGCACAGATGAGCAGAGTGGATGGTTCGGTGGGTCCCCACGAGGGCGAGTGGT
GGTCATATGTGATGGCACCGTGTTCACACACCCTCCTGTGTACCCCCCAGGGTCACCCG
AAGTCCCCACACGCTGGCTCTCCACACCCTCCTGTTCCAGAAAGCATGTCCCG

Sequence 946

TCGACCNCGCGTCCGGCACTCCCTCTGGCCGGCCAGGGCGCCTTCAGCCCAACCTCCCC
AGCCCCACGGGCGCCACGGAACCCGCTCGATCTCGCCGCCAACTGGTAGACATGGAGACC
CCTGCCTGGCCCCGGGTCCCGCGCCCCGAGACCGCCGTCGCTCGGACGCTCCTGCTCGGC
TGGGTCTTCGCCAGGTGGCCGGCGCTTCAGGCACTACAAATACTGTGGCAGCATATAAT
TTAACTTGAAAATCAACTAATTTCAAGACAATTTTGGAGTGGGAACCCAAACCCGTCAAT
CAAGTCTACACTGTTCAAATAAGCACTAAGTCAGGGAGATTGGAAAAGCAAATGCTTTTA
CAC

Sequence 947

ACCCCGCGTCCGCTTTTGCATCTGGATCATTTTTCTTTGCCCCACCATGTAAGAAGTGC
CTTTACCTCCCAACCTGAACCTGAGGCCTCCCGAGTCATGTGGAATCGCCCCAGCCA
CCCCACCCAGAGGGCTACGTCCTGGCAGAGCTGGGTTTGGTTAGTTCTGAGGGCTGAGC
TGGCCCAGCAGCTCCAGACCTCCAGACCTTGCACTCACCTGTGAACCTGACTCTGCAAA
TCCTCCAAGATGCGCCCACCACACTCCCAGTGAACAACACCTACAGGAGCTTGGAGTTCT
ATTCTCAGATACATCAGCTTCCACATTCCTGTGTGTCCCAGCTGGAGAAGCAAGAAGTCC
CAGACCATGTGCTAAGCACAGCTTGGGGTGGGGATGAAATCCAATTGGTGGTGTGTGAAT
CCATGCTGGATTATGAAGCTGAGGCCAGAGGAGGAAGCTTCTTAATCAACTTCTTAA
CATG

Sequence 948

TAAAAGCCATGGTNATTTGTGCACTGTGCAGTTTCTTATTAGCAAAGGTGCCAATGTAA
CAGGGCTACAGCCAATAATGATCATACAGTAGTGTGCTGGCATGTGCAGGAGGCCACCT
GGCAGTTGTTGAGCTTCTTTGGCTCATGGGGCTGACCCTACTCATCGACTCAAGGATGG
TTCAACAATGCTCATTGAAGCTGCAAAGGGTGGCCATACTAATGTAGTTTCTTATCTGTT
GGATTATCCAAATAATGTTCTGTCAAGTCCACACAGATGTGTCTCAGCTCCCTCCACC
TTCTCAAGATCAGTCTCAGGTGCCACGTGTGCCAACGCATACACTTGCCATGGTTGTACC
TNCCCAGGAACCTGACAGAACTTCACAGGAGAACTCTCCTGCCCTTTTAGGAGTGCAAAA
A

Sequence 949

CCACGCGTNCGGTCCGCCTGTGCGGCGCTGCGGCGGAGCGGGCCATGGCAGTGGGGAGGG
GGCGAGTGTAGTGCTGCGCGGGGACGGCGGGAGGTGATCGAGAGAGGCAGGGATGGGGGC
GCCGGAGTGAGCGGTTGCGGCGGNCTGGGCTGCTGACTGCGCACTTGGAAATAGTAGCAG
GCGGCGGCGGCGGAACGCCAGGCAGTGTATGTTTAACTGGAAAAAGTCTCCATGAAAA
CCGTCACTTTTAAAAAATAAGGTAATGCCATTCTGTTTTTCTAAAAAAGACCTGAA
AATGGGGGGGGCCGAACACATTCCCTAGGGGCCCCCGGTGGNTTATTGAAATGTGCCTTTC
AAGTTTTTCATTAATGCNCTCCTGGCTTATTGGGCAGGACCATTCCTTTGAACAATCC
TGGGGGCGGGGCTGGGATTTCAACAAGAATTAGGCAATTCTTGAATGGGCCTTCCAATA
ACCTGNTGGGGAATTTTCCNTTTTNGCCCCAACCTTGGGGGAATTTNATTATTTNC
AAGNTTTGGGGAAGGGTTACCCTTCNGGGGGAAANGCTTAACCCAATTTTTTC

Sequence 950

TTNNGGAGTCGCCACGCGTCCGGCCGGCGACGGCGGCAAGTGGCGGCCCGGCCTGCAGGA

TABLE 1

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GCCCGACGGGGTCTCTGCCATGGGGGAGTGACGCGCCTGCACCCGCTGTTCCGCGGCAGC
GGCGAGACATGAGGAGACCCCGCGACAGGGGCAGCGGCGGCGGCTCGTGAGCCCCGGGAT
GGAGGAGAAATACGGCGGGGACGTGCTGGCCGGCCCCGGCGGCGGCGGCGGCCTTGGGCC
GGTGGACGTACCCAGCGCTCGATTAACAAAATATATTGTGTTACTATGTTTCACTAAATT
TTTGAAGGCTGTGGGACTTTTCGAATCATATGATCTCCTAAAAGCTGTTACATTGTTCA
GTTCATTTTATATTA AAACTTGGGACTGCATTTTTATGGTTTTTGTTC AAAAGCCAT
TTTCTTCTGGGAAAAC

Sequence 951

NNTCCGGAGTCGACCNCGCGTCCGCGGCTGCTGCCTGCTCTGGAGGCAGGCTGGGCGGTG
GCGGCCGAGACTGGCGGGGGTGGACGCCCGGGCGGCTGCGCCCGCTTCTTGACGCTGT
GAATTCCTTTGGACAATTGATGATATTTATCATTGTGCCAGTTTCTACAAAATAAAGAT
GGGTGGATTATTTTCTCGATGGAGGACAAAACCTTCAACTGTAGAAGTTCTAGAAAGTAT
AGATAAGGAAATTC AAGCATTGGAAGAATTTAGGGAAAAAATCAGAGATTACAAAATTT
ATGGGTTGGAAGATTAATTCTGTATTCCTCAGTTCTCTATCTGTTTACATGCTTAATTGT
ATATTTGTGGTATCTTCCTGATGAATTTACAGCAAGACTTGCCATGACACTCCCATTTTT
TGCTTTTCCATTGATCATCTGGAGCATAAGAACAGTAATTATTTTCTTCTTTTCCAAGAG
AACAGAAAGAAATAATGAAGCATTGGATGGA

Sequence 952

TCNCCCCGCGCCGGTTTTGATACAGAATGAAAGTGCGTAGTATTTTCATTTTGTTTATTT
TTGCCTTATACATATAGCAAGCCCTCAATAAATAAATATTGAATGAATGAATGAGTGAGT
GAAGAATTTGTTTATAACAGTCTGTCATCTTGATAACACTGGAATGTCTTTGGTTCTTCC
ACTTCATCCTTTATGTTTTAACTTACACACACCATTCTTACACGTCACTAAAGGAAAAT
ACCAGTATATATTGGCTAAAATTTTTTTTTGTTGTTCAAACTGAACTCAAATGCCTA
ATTGGGCTAGGGGTCCTCTTAAAGGAGGTTGATGTTTGCAAATGGGTTATTTTTTAAAA
GCAGTAGATAATTGCTTATTTCAAGGCAAGTAAATGAATTTAGACTAAGCTGTTTCATAGG
ATTATCATTTTTTCCCTCTCCCAAAGTAATTTGTAAGCCGTAAAC

Sequence 953

TCGCCCCGCGTCCGTGATTTCTCAGTGTTCTCCTTAGATACCAAATACAAAGGACGAGGG
ATCAAGCTCAGCGAAAGTATCAGGCATTTAAGGTATCAGGCAGCAATGCGGGGAAAGGTG
AATTTTCTTCAATCAGCATAGGATGGTTAGGGAAGAGCATTTATCACTTTGGTTCTTATC
CTTCAAGCCAGGGGAAAAGCAACAGTGAGGACATCAGAGACAAAAGCATTATAGAACTA
ACAAACACAAACGTTTGACAAGTGAGAAAGCTTTATTAAGCACACATACATGTCAGGGG
GGTGGGAAACAAAAGAGCAAGTTACAGCCCGGGATCCCAAGTTATGCCTTCCATTACAAT
TGCAATCCACACCAAATCAATCTTTGAAAACATTCTCCATTGCGTTCCATACATACAGTA
GAAACCACTGTGGCTGCCCTTAATCCAGTGTGCTTATAGGAAATCAGTTAGCAGCTGACT
CTGTTGAAAG

Sequence 954

CGTCCGGACCCTTATTAAGAATATCCCAGGAAGATGGTGATGAACAGCCTCAGTTTACTT
TTCCACCAGATGAATTCAGTAGCAAAAAAATTACAACAAAAATATTACAGCAGATTGAGG
AACCATTGGCACTGGTGTGAACAATTAACCAGCAAATGTCCTTTTCTAATACCATTGAA
ACTAGACAGCTTTATTTACATGTACAGCATTGGCGCCTCAAGAGCAATAGTATGGTTA
CAGAACCGACGTGAAGCCAATGTGGAGCGAAGCAGAAACCACAAGCAGTGTTAGGCGAGAT
GACCCTGGAGAGTTTCGAGTTGGTCGTCTCAAGCATGAAAGAGTAAAGTTCCACGTGGC
GAGTCACTGATGGAATGGGCTGAGAATGTCATGCAAATACATGCAGATCGGAAATCAGTT
CTTGAGGTTGAATTTTTAGGAGAAGAAGGAAGTGGCTTGGGACCCACATTAGAGTTTAT
GCTCTGGTG

Sequence 955

ACCACGCGTNCGGGCAGAAATACGGCGGCATGTTCTGCAACGTGGAGGGCGCCTTCGAGA
GCAAGGACGCTGGATTTGATGCCCTCAGCGTGGGGCAGCGGGGCGCGAAGACTCCTCGG
AGCGGCCAGGGCAGCGACCGAGGATCGGGGAGTCGGCCCGGGATCGAGGGGGACACCCCG
CGCAGGGGCCAAGGCCGNAAGAGAGCAGGGAGCCCGCGCCCGCCTCCCCCGCCCCCGCC

TABLE 1

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GGGGTAGAGATCCGGAGCGCCACCGGCAAAGAGGTGTTGCAGAACCTCGGCCCCAAGGAC
AAGAGTGACCGTCTNCTTATCAAGGGAGGCAGAATCGTCAATGATGATCAGTCCTTTTAT
GCTGATATTTACATGGAAGATGGCTTAATAAAACAAATTGGAGACAATCTGATTGTTCTT
GGAGGAGTGAAGACCATTGAAGCC

Sequence 956

CCCGCGTCCGCTACTGTACTTTGCAGTTTGATGTTTATTAACATTCTTTGGGCACCTAGC
TACAATATAACTCAATTTTCTGTGAAAACTATTAATCATCCTATTTTTCTTGCTTT
AATATGAGATAAATTTTATACCACTGTTTCTCAAACCATCTGTTGTGAGGGACAGTTTG
CTTTTAAATTTCCAATTGTCAGAGACCAACTTTTGTAAATATAATTAAAAACAAACA
TAAAAATAAACTTATTAGAAAAATGAAATAAAGAGAAATGAAATAAGAATAATTTTATT
ATTAGATTTAACAGATCAAATATTATTTCAATACTCAGATCAAATGTGAATAAGACAGG
GTTGCAAAAAATGCACACTTTTTTTTATTAATAATCATTTATATAAGTAATTTATATAAAAA
TAATATTACAGTTGCAACTTTCTGGTGNTTCTCAACTATGACCAAACAGGAGGGTACAAG
TAAAGGAGCAATCCCAA

Sequence 957

GTCCGACCACGCGTCCGCAGCAAAAGTGCCTGGCTGAAGGACACTGTTGACCCAAAAGTGG
TGACCCTCAACCACCGCATTGCTGCCCTCACAGGCCTTGATGTCCGGCCTCCCTATGCAG
AGTATCTGCAGGTGGTGAAGTATGGCATCGGAGGACACTATGAGCCTCACTTTGACCATG
CTACGTCACCAAGCAGCCCCCTCTACAGAATGAAGTCAGGAAACCGAGTTGCAACATTTA
TGATCTATCTGAGCTCGGTGGAAGCTGGAGGAGCCACAGCCTTCATCTATGCCAACCTCA
GCGTGCTGTGGTTAGGAATGCAGCACTGTTTTGGTGGAACCTGCACAGGAGTGGTGAAG
GGGACAGTGACACACTTCATGCTGGCTGTCTGTCTGGTGGGAGATAAGTTGGGTGGCC
AACAAGTGGATACATGAGTATGGACAGGAATCCGCAGACCCTGCAGCTNCAGC

Sequence 958

GTCGACCACGCGTCCGCGCCAACTCCGGAGGCGCGGTGCTCGGCCCGGGAGCGCGAGCGG
GAGGAGCAGAGACCCCGCAGCCGGGAGCCCGAGCGCGGGCGATGCAGGCTCCGCGAGCGGG
ACCTGCGGCTCCTCTAAGCTACGACCGTCTGCTCCGCGGCAGCAGCGCGGGCCCGCAGC
CCTCGGCAGCCACAGCCGCTGCAGCCGGGGCAGCCTCCGCTGCTGTCGCCTCCTCTGATG
CGCTTGCCCTCTCCCGGCCCGGGACTCCGGGAGAATGTGGGTCTAGGCATCGCGGCAA
CTTTTTGCGGATTGTTCTTGCTTCCAGGCTTTGCGCTGCAAATCCAGTGCTACCAAGTGTG
AAGAATTCAGCTGAACAACGACTGCTCCTCCCCCGAGTTCATTGTGAATTGCACGGTGA
ACGTTCAAGAC

Sequence 959

CCACGCGTCCGAGGGTGGGGAAAGGAGGAGAGGAAGAGCACTCCCTTCCCTGGCCCTCA
TCCAGCCTCCGGTGCTGTAAAACGCAGGCGCTGGGCCGCGGGCGGAGCTGAGGACAGGCC
TTGGCTGGTCCCAGGATGAGCGACGAGTTTGGTTTTAGCTGGGGATTGTGCTGGCATCCT
GCGAAGCTCCTCCAGCCGGTCTCTGTGCTCGGTTGTCTTGGGGTGGGGCCCATCCGC
CGAGGTGGGGACCGATAGGAGAAGCCGGTGGGTTGTACCCTTACACTTGTGGAGTCTCCT
CTTGCTCTACCTACTCCGCCTTTGTCTTAAGTTTTTGAGGCCAGTGCCAAACACAC
ACTAACTGTCCTGGCCTCTCCGTGACACAAGTCTCTTCCAGCCTTCCTC

Sequence 960

CCACGCGTCCGCGGACGCGTGGGGCCGGGACAAGTGGTCTTATCACGGAGGCTGGGGCCA
NGGCAGCCCTTCGGTTCGGGTGGGGCCCATGGACCCAGTCCAACGCCGAGGGAATAGGAC
CATCCAAAAGCGGAACCTTCGCCTCAGAAAAAGGGTGCGGGACCCCTCCTACCGTGCGG
TCAAGCGTGGACCTGCCAGCAGCCAGGCCATGGAGCTCTCTGATGTCACCCCTATTGAG
GGTGTGGGTAATGAGGTGATGGTGGTGGCAGGTGTNGGTTGGTNGCTGATTCTAGCCTTG
GTCCTAGCTTGGCTCTCTACCTACTTAGCAGACAGCGGTAGCAACCAGCTCCTGGGCGCT
NTTGTGTCAAGCAGGCGACACATCCGTCTNCACCTGGGGCATGTGGACCACCTGNTGGG
CAGGCCAAGGCNNCCCCGAAGCCAAGTGA

Sequence 961

NCCCCGCGTCCGGGAGGCTCCATGTTGTCCCCTCAGCGAGTGGCAGCAGCTGCCTCAAGA

TABLE 1
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GGAGCAGATGATGCCATGGAGAGCAGCAAGCCTGGTCCAGTGCAGGTTGTTTTGGTTCAG
AAAGATCAACATTCCCTTTGAGCTAGATGAGAAAGCCTTGGCCAGCATCCTCTTGCCAGGAC
CACATCCGAGATCTTGATGTGGTGGTGGTTTCAGTGGCTGGTGCCTTCCGAAAGGGCAAG
TCCTTCATTCTGGATTTTATGCTACGATACTTATATTCTCAGAAGGAAAAGTGCCATTCA
AATTGGTTGGGTGACCCAGAAGAACCCTTAACAGGATTTTCTGGAGAGGGGGATCTGAT
CCAGAAACCACTGGGATTCAAATCTGGAGTGAAGTTTTCACTGTGGAGAAGCCAGGTGGG
AGAAGGTTTGCAGTTGTTTCTGATGGATACCAGGGGGCAT

Sequence 962

GCCCCGCGTCCGCTTCTCCGAATATAGCAACGTCCAGCAGTGTCCACACTGTGGGAACCT
GGACTACCACTTCGTGAAGCCATTTTCTCCTTCAAAGTTCTCGAAGCTTATTGATGAAA
GCTTTGCTTTAGTAATAGCTATTTTATTGATATTATTACTTTATTACATATCTTTTATAG
GGAAACATTCTGTGACATTAATTTCTTTCTAATTTAAAGGAGAGTTACTTTGTTGTATG
TGTGCCACTAAAATAGGGGCTGCCCTTGCCCTGTCTTGATTCCCGAGTGTTAATCTGTGG
TTTTGACCAGAGCCCAGATGGGTAACTCTGTGCATTTGGGTTGGGGGTTCACTCTTACCA
AGAATCTTTGATGCAGCTTTAAGATGGTGGGGAGATGGGGGTTGAATTTAGGGAAAGAAT
NTTTGTGGGTTATAAACTAAGAGCTTGATAGGAGTTGGAAGGAACTCTTACTAAAATGT
TAACTTTCTAAAAACCTTCTTTTANATCTTNCTTGGGCCTTTGAAAA

Sequence 963

GTGTTTTGGGGATGCCTTTCTTACCAGATTCTTCTAAAGCCCAGCTGCACCCACCCTTA
AGTGGGAGATAAGGCTTCTGCCCCGCGGCTCTGCGTTCGTCCACCCGCCCCACGTTTGC
TGTGGACTAAACAGGAGCCACTGGACTAGAGTACACTTGACTCTCGGCTCTGCGGACCAA
AAATTCAGGACTAAGGAATAGCAAGTTAGGCTGAAACAGTCCACACAGGGCTTGCGGT
AAACGTCTTTTTCAGGAGCCACTCGCCAGTGCGAGTAAGTCGTGTACTTAGTTGACTCGAG
CGCTCCAGGGAGACGCCCCACCCTACTCTGCGCCGCCCCGCGGACCAGCTCTGCTTCCT
CCAGGTCCACTGAGGCAGGCACGCCAGCTCTGGGACAGGTGAGTAAACAAGCCACGAAC
CGCGCCAGGGATCAGAGAACCCANAGTCCCCGCCAGCTGCCGGCACAAGCCAATCGCAGC
GCANCCAGGCGGC

Sequence 964

GTCTAAGGGATCCAGGTCTGTGTCTCAGGGACCTCTGATGGGATTGAATCCAAGAGGAA
TGCAGGGGCTCCAGGCCCNCGGGAGAACCAGGGTCTGCTCCCCAAGGGATGATTATGG
GCCACCCGCTCAAGAGATGAGAGGACCTCACCTCCAGGTGGACTACTGGGACACGGCC
CTCAGGAAATGAGAGGTCTCAGGAGATCCGAGGCATGCAGGGGCCTCCACCCCAAGGAT
CAATGCTGGGACCTCCCCAGGAATTGCGAGGGCTCCAGGCTCACAAAGTCAGCAGGGGC
CGCCCCAGGGCTCTTTAGGACCTCCACCCAGGGTGGCATGCAAGGACCCCCCGGACCTC
AGGGACAGCAGAACCCAGCAAGAGGGCCACATCCATCTCAAGGGCCAATACCATTCCAGC
AACAGAAAAACGCTCTGCTAGGTGATGGGCCCCGGGCCCCCTTCAACCAGGAAGGACAGA
GCACAGGCCCCCCACC

Sequence 965

TGCGCATGCGCGGAGCGCGGCGCGCGCGGTTGGCCGTTGGCTGTTTCGGCCCTGGGA
TCCGCCGCCACTCCGCGATCAGACCGCTCTGTGCCGCGAGCCGCGTGAGCACTCGGATT
CAAGCCGGCGCCAACGAGTCCGGGGGCATCGCCCGCAGCGGCCAAGCTCATGGCCGGCTG
AGCGGGACGCCCTNCGCCTCAGCCACCGCGCGCGCCGCTTCTTCTCCTCAGCCG
GCGGCGGCCCGGGCCAGCAACCATGGCTGAAGACTACTGGGACGGGCGCCTGCGGCGAA
CAGGAGGAGAAAGGGAGGTGCGCGCGCCTCATTCCGGGGCCGCGCCCCAGGCGCGCGCGC
GCCGGCCCCGCGGCTCTGAGGTTGCTCGCGCGCCCC

Sequence 966

TGAAAAATNTTTTGAAAAAATTACCCTTGGGACCTTGNTTTTNAANCCCNAGGTTCCCN
GTTNNGGCAAATAAANAATGNNNGACCCGGGATTTNNGGNTTNNAACCGGGGGTTTTT
AATTTCCCNNNNCNNGGNCCTTTTTTTTTNCCNCCCCCNCAAGGGGNTTTGGGAAAN
NAAANCCCCCCCCCTTTTTTTTTNNGGGGNGAAANTTCCCCGGGTNNNNGCCNTTTTTTTT
TTTTTAAA

TABLE 1

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Sequence 967

GTCCGCGAGGCTCCGCACCGCCGCGCTTCTGTCCGCCTGCAGGGCATTCCAGAAAGATG
AGGATATTTGCTGTCTTTATATTCATGACCTACTGGCATTGCTGAACGCATTTACTGTC
ACGGTTCCCAAGGACCTATATGTGGTAGAGTATGGTAGCAATATGACAATTGAATGCAAA
TTCCCAGTAGAAAAACAATTAGACCTGGCTGCACTAATTGTCTATTGGGAAATGGAGGAT
AAGAACATTATTCAATTTGTGCATGGAGAGGAAGACCTGAAGGTTTCAGCATAGTAGCTAC
AGACAGAGGGCCCGGCTGTTGAAGGACCAGCTCTCCCTGGGAAATGCTGCACTTCAGATC
ACAGATGTGAAATTGCAGGATGCAGGGGGTGTACCGCTGCATGATCAGCTATGGGTGGTG
CCGACTACAAGCGAATTACTGTGAAAGTCAATGCCCATACAACAAAATCAACCAAAGA

Sequence 968

CGTCCGGAACTCAGCAACGGTTTCTTCATCCAGGACCCGATTGCTCTGGTGGAGAGGGG
GGGCTGCTCCTTCTCCTCCAAGACTCGGGTGGTCCAGGAGCACGGCGGGCGGGCGGTGAT
CATCTCTGACAACGCAGTTGACAATGACAGCTTCTACGTGGAGATGATCCAGGACAGTAC
CCAGCGCACAGCTGACATCCCCGCCCTTCTCCTGCTCGGCCGAGACGGCTACATGATCCG
CCGCTCTCTGGAACAGCATGGGCTGCCATGGGCCATCATTTCCATCCCAGTCAATGTCAC
CAGCATCCCCACCTTTGAGCTGCTGCAACCGCCCTGGACCTTCTGGTAGAAGAGTTTGTC
CCACATTCAGCCATAAGTGACTCTGAGCTGGGAAGGGGAAACCCAGGAATTTTGCTACT
TGGAATTTGGAGATAGCATCTGGGGACAAGTGGAGCCAGGTAGAGGAAAAGGGTTTGGGG
CCGTTGCTAGGCTGAAAGGGAAGCCACACCACTGGCCTTCTTCCCCAGGG

Sequence 969

GATTGGAGGAGTCACATCCCCTCTTCAGCCGAGCACCCCTCCCTCCCATCCTCTAGCTC
TTCCCGCGGTGGTTCGCCTCCCTCCGACCCCTGCTCTCCCCTCCTGGGCCCCGCGCAAAGCC
CCCTCTGTTCCAGCTCCCGGGCCTCGGCTGCCTCCCCGCCCTCCCATCCCTTCTCTTCC
CAGGGCCTGGAGCGCTCCCTTACATTCTGAGATGCCCTTCTCGGGGCTGTCCCCCTTT
GCCTCCCCAGCATCCCATTTCTAGGCCCTTTTCAAGACCCTTCAGAGCGGCCCTTTCC
AGCTCCCTTTCTCGTTTTCCATTTCCAACCTTGCCTCTTTTGCCTCTTTGTTCACTTTGCT
TCCAAGCTCCCCTCCCTCTTTCCCTTCGTCTTACCCTGCTTTGATCTACGCAGCCCCAAA
CTCAAGCTCCCCGCTTTCAAGGTGGTGCGAGGTTGTTGGGGGGTGCGGAAGGGCCTGCCA
AGTCCATTTTTCGAGGGG

Sequence 970

GTCCGAGATCGCGAGCCGCCGCCCTTTTTTTTTTTTTATAAGATTATTAGTATAAAAN
GGGGAGACGAGGTTAGGGCCCTGGGAAAGGTGGGAGATCAGCCAGAGACAGGTTTCCCAG
AACAGAATGTCTGGCCTTTGTGGTGAGGAGGACTGTGGTATGAGCCGAGAAGCGGGCC
AGGGGTAAACCCTCCTGTGCGTCTTCTTCAGCCTGGTCCTGAGGGTGACCCTTTGATC
CTGGGTTCTCCAGGTAGGGCTGTGAGCTGTGAGTTGGATCCTTTTGGTGAATGGTCTCT
CTCATCTGGCCTGTCACTCAATGTGGAATAGAGTGAGTGAGTTCTATGGGTTCTAAGTCC
TGCTCTGGAACCATAAGTAAGTTATCCTCTCTGGGCTTCAGTTTTTTCATGGAAAGTTGCG
TTAAGAATCTAGTTTAAGGCCAGGCATGGTGGCTCACCGCCTTGTAATCCAGCACTTTG
GGGAGGCCAAGGAAGGTGGATCATGANGTCAGGAGATCGAGACCATCCTNGCTAACATGA
TNAACCCGTGTCTTTACTTAAAAAATAC

Sequence 971

CCTGCCAGTGGTGAGCACCTTCGGCCTCCAGGTGCCTTTCTTCTTTCGCGGCCATNTG
CTTGGTGAGCCTGGTGTTCACAGGCTGCTGTGTGCCCGAAACCAAAGGGACGTCCNTGGA
GCAAATCCGAGTCTTTTTCCGCACGGGGAGAAGGTCTTCTTGCCTAGGTCAAGGTCC
CCGCCTGGAGGGGGCCAAACCCCA

Sequence 972

GCGTCCGCGGACGCGTGGGCGGACGCGTGGGTCAGCCTCCACCTGGAAGAGAGCTANGGG
CCGGGCAGGCCGGGCAGCTGCCACCCCGCCCGGCCGACGCCCGCATGCCCGAAGTCC
CTGGCGCCACCCGGCCGCGGCCCTGCGTGTGACCGCGGGTCGATACCTGGCAGCCCCA
GTGCTGGGGCGCCGCGGCCCTGCTCGCCAGGAGGAGAGCGAGGGCCCCACACTGAGTCT
CTTGAAGCCTCACGTTTCCCTGGGGGGGTGCTGCATCGTGGGTGTCCCTCACCCACCT

TABLE 1

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GGGGAACCTCTGTCTTCAGGTACCCCTTTTCAGGGGCCTGG

Sequence 973

CGTCCGGGACCCTGCTCATGGAGAACATCAGCAGCTGGCTGCTCCTTCGCTGACGCCCTG
GGCTACGTGAACCTGCCGCTCACCTTTTTCTGCCGGGCAGAGCTGGATAGTGAGCCCGAG
CGGGTGCGTCCGTCTCGGAAAAGCTGAAGGAGGACTGNAACAACACTGAGAACAAAGAA
CGGAAGTCCTTNCAGAAGGAGCTTGTGATGGCCCTACTGAAGATGGACTGCCAGGGCCTG
GTGGTCAGACTCATCCAGGACTTTGTGCTCCTGACCACGGCTGTAGAGGTGGCCCAGCGC
TGGCGGGAGCTGGCTGAGAAGCTGGCCAAGGTCTNCAAGCAGCAGATGGACGCCTACNAG
TCTCCCCACCGGTGACAGGAACGGGGTTGTGGACAGCGAGGCCATGTGGAAGCCTGCGTA
TGACTTCTTAC

Sequence 974

TCACCACGCGTCCGCGAAGCGTGCACCGCTGCGCCCCGCGGGTGAGCGCGGGGAGCGCC
GCAAGCCCAACGCCGGGGGAGCCCGCTCCGGTGCGCCGCCGNCGGAGGCCTCGCCGG
TGCAGAAAAAGGAGAAGAAGGACAAGGAGCCGGGAAAAACGAGAAGGAGAAGAGTGCCCTA
GCCCGGGAGCGCAGCCTCAAGAAGCGCCAGTCGCTGCCCGCCTCCCCACGTGCCCGCCTC
TCTGCCAGCACCGCCTCTGAGCTCAGCCCCAAATCCAAGGCCAGGCCATCCTCTCCCTCC
ACATCCTGGCACAGGCCTGCCTCCCCCTGCCCCAGCCAGGGCCAGGCCACACTCTGTCT
CCAAAGCCACCGTNCCCCGAGGCACCACTGCATCCCCCAAGGGGCCGGGTTGAGGAGAA
GGAGGAGGCAAAGGAGAGCCCCAGCGCCGCANGGCCGAGGACAA

Sequence 975

TCCGCAGAAACGGACTTTCTCATCATGCTTTCTATGGTGGGTATGAGGGGCCAGCTGAT
ACCAACCAACTGGCCTGTATCTATCTATCTGGATTTGACTTGAATTTTTAAATGTGTAT
CGTTTAAAAAATAATGTTTGCAAATTTGCACATAGGATCTTGCACTGTTCAATTTCA
GTGGGGTGAGTCTTCACTAAAAACACAAGCAGAGCTCCTGGGAAAAGAGACTGGAAGT
GGTTCAGGATAAAGAGATCCATGGTGGGCAGGGCTCTTAGGTCACAGAGCTCTAGAAGCA
GCTGGACTTGAACCCACAATGGCTTGTGTAAATTCGTAAATTTTATGGTTTCTAGGAAAA
GCTGCATTG

Sequence 976

GCGTCCGGAAGAACTGTGGAAGTGCAGGTTGGCAGACAATTTTGTACAAATATTTAAAGG
AAAGATTTTGCCAATATGACCAGCTTGGTGACCTGACTCTATCCAGGAATACAATAAGT
TTTATTACACCTCATGCTTTGCTGACCTACGAAATTTGAGGGCTTTGCATTTGAATAGC
AACAGATTGACTAAAATTACAAATGATATGTTCACTGGTCTTTCCAATCTTCATCATTTG
ATACTGAACAACAATCAGCTGACTTTAATTTCTCTACAGCGTTTGATGATGTCTTTGCC
CTTGAGGAGCTGGATCTGTCCTATAATAATCTAGAAACCATTCTTGGGATGCTGTTGAG
AAGATGGTTAGCTTGACATCCCTTAGTTTGGATCACAATATGATTGATAACATTCCTAAG
GGGACCTTCTCCCATTTGCACAAGATGACTCGGTTAGATGTGACATCAAATAAATTGCAG
AAGCTACCACCTGACCCTCTCTTTGAGCGAGCTCAGGTAAGTACTAGCAACCTCAGGAATCATA
AGCCCATCTACTTTTGCATTAAGTTTT

Sequence 977

NCTCCAACAATTATGGCTCATCCTTCCTTTTACTCTGTCTCACCTCCTTTAGGTGAGTAC
TTCCTTAAATAAGTGCTAAACATACATANACGGAAGCTTNGAAAGCTTTGGTTAGCCTTGCC
TTAGGTAATCAGCCTAGTTTACACTGTTTCCAGGGAGTAGTTGAATTACTATAAACCATT
AGCCACTTGTCTCTGCACCATTTATCACACCAGGACAGGGTCTCTCAACCTGGGCGCTAC
TGTCATTTGGGGCCAGGTGATTCTTCTTGCAGGGGCTGTCCTGTACCTTGTAGGACAGC
AGCCCTGTCTAGAAAGGTATGTTTAGCAGCATTCTGGCCTCTAGCTACCCGATGCCAGA
GCATGCTCCCCCGCAGTCATGACAATCAAAAAATGTCTCCAGACATTGTCAAATGCCTC
CTGGGGGGCAGTATTTCTCAAGCACTTTTAAAGCAAAGGTAAGTATTCATACAAGAAATTT
AGGGGGAAAAACATTGGTTAAATAAAAGCTATGTGTTCTATTCAACAATATTTTT

Sequence 978

CCCCGCGTCCGGGTCCCCGCGACTCCCGGACTGGAGAAAACGGCTCTTGCGATGGGGCGA
AGTCCGAGCTGCGGCGGGCGTTGGTCCGTGCAGGGAAGTGGAATCGTTAGGTTCTGTTCT

TABLE 1
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GGACCCGCCGCCCCATGGCCCAGGCGTCTCGCTCAGGTAGCCTGCCTCCACTCGTTATCG
TGCCCCCGCTGAGGGCGCAACCCGGGGGCACTGGGGAGGAGCAGTGGGAGAGAAGTCGAA
CGGNCGGNCTTCCGCTGGGCAGAGCTCAGCAGTACTTGGCAGCATGGGACCCAGCTTCCT
TCCTGCTCCTGATCCAAAAGGACTTACCTNCTCTGTTGCATGAGGCAGAAGCTTTGTATA
GCCTGGCCTCAGAGGAAAGCTTAGCTCTGGAAGTGGAGCAGCAGCTGGGCCTGGAGATCC
AGAANCTGACTGCACAGATCCAGC

Sequence 979

AGGCTGNTACGAAGCGAGCTTGGGAGGAGCAGCTGGCCTGCGGGGAGAGGAGCATCCCCG
TCTACCANGTCCCAAGCGGTGTGGCCCGCGGGTCATGGNCAAAGGAGAAGGCNCCGANAG
CGGCTCCNCGCGGGGCTGNTACCCACCAGCATCCTCCAAAGCACTGAACGCCCGGCCCA
GGTGAAGAAAGAACCAGAAAAGAAGAAACAACAGTTGTCTGTTTGCAACAAGCTTTGCTA
TGCACTTGGGGGAGCCCCCTACCAGGTGACGGGCTGTGCCCTGGGTTTCTTCTTCANAT
CTACCTATTGGATGTGGCTCAGGTGGGCCCTTTCTCTGCCTTCATCATCCTGNTTGTGGG
CCGANCTGGGATGCCATCACAGACCCCTGGTGGGCCTCTGCATCAGCAAATNCCC

Sequence 980

ACCCCGCGTCCGGAAGAAGAGTGGCCNGTTCCAGGGGTAGCTCCAAAAGAGACTGCAG
AGCTGTCCGAGACCTGACAAGGGAGGCCCAAGGCAACAGTTCCGCAGGAGTGGAGGCAG
CAGAGCAGAGGCCTGTGGAAGATGGCGAGAGGGGCATGAAGCCAACAGAAGGGTGGAAAT
GGACCCTGAACCTCCGGAAGGCTCGAGAATGGACACCCAGGGACATAGAGGCTCAAACCTC
AGAAACCAGAACCTCCAGAGTCAGCAGAGAAGCTTCTGGAATCTCCCGGTGTGGAGGCTG
GAGAAGGGGAGGCTGAGAAGGAGGAGGCGGGGGCTCAGGGCAGGCCTCTGAGAGCCCTGC
AGAACTGCTGCTCTGTGCCCTCCCCCTCCCACCAGAGGACGCTGGGACTGGAGGCCTGA
GACAGCAGGAAGAGGAAGCAGTGGAGCTTTCAAGCCCCACCACCAGCCCTCTGTCTCC
CCCACCCAGCCCCAACTGCCCCCAACCTTCTGG

Sequence 981

GCCCCGCGTCCGAAAAGAATGGGTGAACCAATCGGCCTTTGTGAATTTATTCACTGCCTT
CTCTGTACCAAGCACTGGGTAAGGCACTTTTGTGGAGCATTAGACAGTAACCCTCAAGGA
GCTAGAGAACCAGGATGGGAGACATGAGCGGTAATTAACCTCACTTGTTCCCCAGAGTTTCT
ATTTGTTTTGATTTTCTTTTCTGTGACTTATTTTCTATTTTCTTCTCCATGTAATT
TTCATATGGCCCAACTAATATAAACACCTGGAAATTACAAGGAAAAAAATTTCTTCCTC
TAATAACTTTCCAAATTTGTGGAATATTTATTTGTAATAGCAGTTATCAGTTATGCTTAT
ATAGCATTAATAAATTTCTCTCTTTGACTACACACACAACCACAGTGTGGTTCTAATCAT
GGAGATATCAGTAATTTTAGTAAGTGAATTTGAGGACATTTCTNTGTTTAGCATGTAT
GCAAACCTGATATGTAATCTGAGGTTCCAAAGTCAATTTTTTTCTTTTTT

Sequence 982

TNGGGAGTCGACCCCGCGTCCGGTTTTTGTGAGGCAGTGAGACCTAAGGTAACCTTTATC
AAAAGGATGGAGTTGGGAAAAGGAAAACCTACTCAGGACTGGACTGAATGCGTTGCATCAA
GCAGTGCATCCGATCCATGGCCTTGCTGGACCGATGGGAATCAAGTTGTCCTAACTGAT
TTGCGGCTTCACAGTGGAGAGGTCAAGTTTGGGACTCCAAAGTCATTGGACAGTTTGAA
TGTGTCTGTGGGTTGTCTGGGCCCCACCTGTTGCAGATGATACACCTGTTCTACTCGCT
GTCCAGCATGAGAAGCATGTCACTGTGTGGCAGCTGTGTCCCAGCCCTATGGAGTCAAGC
AATGGCTTGACGTCTCAGACTTGTGAGATTAGGAGGGATCACTACCTATCCTTCCCCAG
GGCTGTGTGTGGCACCCAAA

Sequence 983

GTGTCGACCCCGCGTCCGCGCCCTGCCTGCAGTTGAGATTGAGATGCCTTCTGACAGAGT
TCAGCCTCTTGAGAGTCTTGGGGATTGTTGGCACCTAAACAGAATCAGNGACCCGGGTG
CTTTGTGGCCAGCAGCACAGAATCAAACCCGCATCCCAGCATTGGGCCAOCATCTGAGG
GAGGCCAAAATCATCAGATGCTGCTGTGCTGCAGACAGATACATGCTAGTCCAGAGAG
CCGCCCCGTGAGATGGCTGTGAGAACCATGTGTCTAAGGCGTAAGATAAGGATGGAAGGCT
GTCCAAGTTATTTGGAAGGCCTCGGCAGCTTGGGATTAGCTTGGGAGCGCAGCGCTGCAA
AGTGGAATAATGAAAAGACCACACAGGCCCAAGCAGTCCAGAACTGGGCAAAATATT

TABLE 1

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CTGCAGTGGGGATTATTTTTT

Sequence 984

CACGCGTCCGGAGTACGGAGTTGTTCTTTACTGGCTGAAAGATATATTCGAATTGTAAA
GATGCTTTTTCTCATGCATTGAAATTATACATTATTTGTAGGGAATTGCATGCTTTTTT
TTTTTTCTCCCGAGACAGGGTCTTGCTCTGGCGCCAGGCTGGAGTACAGNNGCATGAT
CTTGGCTCACTTCAGCCTTGACTTGGGCTCAAGTGATCCTCCTACCTGAGCCTTCTGAGT
AACTGGGACTACAGGTGTGCACTCCTCGCCTGGCTAATTTTTATTTTTGTACAGGCAG
GATCTTGCCACCTTGCCAGGCTGGTCTTGAACCTGAGCTCATGCCATCTGCCTGCCT
TAGTCTCCCAAATGCTGGGATTACAGGAGTGAGCCACCATGCCCGGCTGGCAGTTGCAT
GGAAGAGAACACCTNTTTATGGCTTACCCTCTAGAATTTCTAATTTATGNGNNTGTTGA
AATTTTTGGTTTTTTTACCT

Sequence 985

GTGACACGCGTCCGCTCGGCTTCTGCTGATGGTCAGGGTTTTGGCAACTCCCGGTG
TGAGAGGGGTAGGGAGTGCTCCCGCGCGGACGGGGCCGAGTTCACCAGCCGCCGGGGCA
GTAGTCGAAGGCCCGCGCGGCATGCTGGGTGCCGCGGTGCGGGCAGTGAACGCGCGC
CGGGCGGGATGGGCCGCGCGCGGGCGCCAGAGCTGTACCGGGCTCCGTTCCCGTTGTACG
CGCTTCAGGTCGACCCCAGCACTGGGCTGCTCATCGCTGCGGGCGGAGGAGGCGCCGCCA
AGACAGGCATAAAGAATGGCGTGCACTTTCTGCAGCTAGAGCTGATTAATGGGCGCTTGA
GTGCCTCCTTGCTGCACTCCCATGACACAGAGACACGGGCCACCATGAACTTGGCACTGG
CTGGTGACATCCTTGCTGCAGGGGCAGGATGCCCACTGTCAGCTTTCTGCGCTTCAGGC
ACATTAACAGCA

Sequence 986

CGCCACGCGTCCGCGTACGCGTGGGCGCGACCGAGCGTGCGGACTGGCCTCCCAAGCGTG
GGGCGACAAGCTGCCGAGCTGCAATGGGCCGCGGCTGGGGATTCTTGTTGGCCTCCTG
GGCGCCGTGTGGCTGCTCAGCTCGGGCCACGGAGAGGAGCAGCCCCGGAGACAGCGGCA
CAGAGGTGCTTCTGCCAGTTAGTGTTACTTGGATGATTGTACCTGTGATGTTGAAACC
ATTGATAGATTTAATAACTACAGGCTTTTCCCAAGACTACAAAACTTCTTGAAAGTGAC
TACTTTAGGTATTACAAGGTAAACCTGAAGAGGCCCGTGCTTTCTGGAATGACATCAG
CCAGTGTGGAAGAAGGGACT

Sequence 987

GGTCGCCCCGCGTCCGTAGCAGTTACATCTACGAGGCTATTATGGATTGGAGGATGAGAA
GGGAACTGCATGTACCTCAACAAGGCGTCGGTCAACACCGCGAAGTTTGGCAGGCTTGAC
AAGTGGAGTTTTTGAATCTATAATGGTTCAAGTTTTGAGACAGGAAGAAGCTGAGAGC
AAAAGAAGAAAAAGGCTTCGGGAGCAGGAAAGAAAAGAAGCAGAAGAAGCTAGTCAAAA
GGAAATAGAAGAATGGGAAAGAAAACCTCTAGCTCAAGCAGCTCCAATTGTATGGAGAC
CATGTGGGAAATCCAGCTATTGGGCATTTCTTTGTTTAGCTCAGCAAATTCTAAATTT
GCCAGAAATAGTCTTTTACCGAAGTGAACCGTTGTCTTCTGATGCCTCAGTGTAATGCT
TTTCTATCGAAAATAATGACTTCTTATTTAAGTCCTCCCATCGCAGA

Sequence 988

NCCCCGCGTCCGAGTCCCCTGTCTGTGGCACCAGACACTCCCGACTGTGCGCTGACTCTC
CCCGCCCAGCCAGCAGCCTTTCCAGAGAGGCTGTGGTCCATAGCCTCTGTTCTGTTTTCA
CTGCAGGACCAGGCACGAAAGTTAAACAAAATGAAGATTTTTCTGAATCTCATAAAAC
AGTGTGTTGTTGTGGATCACTGCCCTTATATGGCAGAATCTTGCAGGCAGCATGTGAGTT
TGATATGCTGGTGAAGAATAGAACCCAAGGAATCATTCTTTGGCCCCCATATCTAAATC
ATTGTGACTTGCTCAGTAGAATCTTCATGGAATATTGTAGAATAATGTATGATATATT
TCCTTTCAAAAAGCTGGTGAATTTATTGTGAGTGACTCTGGAGCATATGTTTTAAATTC
TTGGACTCAAGAAGACCAAAATTTACAGGAGCTAATGGCAGCATTAGCCCGCTGTTGGGC
CTCCTAATCCTCGGGC

Sequence 989

GTGCCCCACGCGTCCGTTCTGTTGTCTGATGGACCTGCTTGCAAAAGGCCAGCTCTGTTGC
ATTCCCAATTTTTGACACCACCTCAAACACCAACGCCCGGGGAGAGCATGGAAGATGTTT

TABLE 1
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ATCTCAATGAACCCAAACAGGAGAGCAGTGCTGATCTGCTTCAGAACATTATCAACATTA
AGAATGAATGCAGCCCCGTTTCCCTGAACACAGTTCAAGTTAGCTGGCTGAACCCCGTGG
TGGTCCCTCAGAGCTCCCCCGCAGAGCAGTGTGAGGACTTCCATGGAGGGCAGGTCTTTT
CTCCACCTCAGAAATGCCAACCATTTCCAAGTCAGGGGCTCCCAACAAATGATAGACCAGG
CTTCCCTGTACCAGTATTCTCCACAGAACCAGCATGTANAGCAGCAGCCACACTACACCC
ACAAACCAACTCTGGAATACAGTCCTTTTCCCATACCTCCCCAGTCCCCCGCTT

Sequence 990

GTCCGGCTGGGACCTCCTCCTGTTGGGGTCCCCATGAACCTTCCCAGTTCAACCTTTCA
GGACGGAACCCCCAGAAACAGGCCCGGACCTCCTNCTCTACCACCCCCAATCGAAAGACA
ATGCCTGTGGAAGACAAGTCAGACCCCCCAGAGGGGTCTGAGGAAGCCGCAGAGCCCCGG
ATGGACACACCAGAAGACCAAGATTTACCGCCCTGCCAGAGGACATCGCCAAGGAAAAA
CGCACTCCAGCACCTGAGCCTGAGCCTTGTGAGGCGTCCGAGCTGCCAGCAAAGAGATTG
AGGAGCTCAGAAGAGCCACAGAGAAGGAACCTCCAGGGCAGTTACAGGTGAAGGCCAG
CCGCAGGCC

Sequence 991

NCGCGTCCGCTTAAATGACTCGTTATCATTTTGCAATGAATGGAAAATCATTCTCAGTGA
TACTGGAGCATTTTCAAGACCTTGTTCTTAAGTTGATGTTGCATGGCACCCTGTTTGCCC
GTATGGCACCTGATCAGAAGACACAGTTGATAGAAGCATTGCAAAATGTTGATTATTTTG
TTGGGATGTGTGGTGATGGCGCAAATGATTGTGGTGCTTTGAAGAGGGCACACGGAGGCA
TTTCCTTATCGGAGCTCGAAGCTTCAGTGGCATCTCCCTTTACCTCTAAGACTCCTAGTA
TTTCCTGTGTGCCAAACCTTATCAGGGAAGGCCGTGCTGCTTTAATAACTTCCTTCTGGT
GTGTTTAAATTCATGGCATTGTACAAGCATTATCCAGTCTTCCAAGTGTTACTCTGCTGT
ATTCTATCTTTAAGTAACCTAGGAGACTTTCCAGTTTCTCTTAATTTGATCTGGCAATCT
TTTGGGTAAGTGGGTATTTANAAT

Sequence 992

TTTTCACTGCAGGACCAGGCACGAAAGTTAAAACAAAATTGAAGATTTTTTCTGAATCTC
ATAAAACAGTGTTTGTGTGGATCACTGCCCTTATATGGCAGAATCTTGAGGCAGCATG
TCGAGTTTGATATGCTGGTGAAGAATAGAACCCAAAGGAATCATTCTTTGGCCCCCATAT
CTAAATCATTGTGGACTTGCTCAGTAGAATCTTCCATGGAATATTGTAGAATAATGTATG
ATATATTTCTTTCAAAAAGCTGGTGAATTTTATTGTGAGTGAATCTGGAGCACATGTTT
TAAATTCCTTGACTCAAGAAGACCAAAATTTACAGGGAGCTAATGGCAGCATTAGCCGCT
GTTGGGCCTCCTAATCC

Sequence 993

CGCGTCCGGGCAGGAGCACCCTCAAGGAGCTACACCCCTTGATCGGCTTGACCGCCTT
ACCTCAGGGGTGCTTATGTTTGCCAAGACAGCTGCAGTCTNTGAGAGAATTCAGGAGCAG
GTTCCGGGACCGGCAGCTGGAGAAGGAGTACGTGTGCCGGGTGGAAGGGGAGTTCCCCACT
GAGGAAGTGACCTGTAAAGAACCCATCTTAGTGCTTACAAAGTAGGGGTGTGCCGT
GTAGATCCCCGGGGCAAGCCCTGTGAGACAGTGTCCAGAGGCTAAGCTACAATGGCCAG
TCCAGTGTGGTACGGTGCCGGCCACTCACAGGCCGCACACACCAGATTGAGTCCACCTT
CAGTTCTTGGGCCATCCATTCTCAACGACCCCATCTACAACCTCAGTTGCCTTGGGGTCC
TTCTCAGAGGCCGGGCGGCTACATTCCCAAGACAAACGAGGAGTTGCTACGGGACCTGG

Sequence 994

ACGCGTCCGCGACCGCTGGGCATGCGGGTGTGGCGCGGTATCCCCGCCCTGCCAGCAT
CTGCCCCACGTTTCTTCAAGGCTAACTACCGGGATCCCGGGCTTCTTCTAAAGTAAAC
TCGCTCCGGAAGGCCAACAGTCCAGCGGCCAGACGGGCACCTGGGAACGCGGGCCTAAC
GCGTACTGGAGACGGAGTGGCGCCCGGCACTGCGCGCCTCCTCCCCGCCGGGAGACTGCG
TGCTAAGCTCAGCAAAGCCCCGCTGTGGAGACGGAGCCATGTCGCCCATTACCTAATGAA
ACTGAGAAGGGAGACTCAGTCTCTCTTCTAGCCCCGAGCGCAAGCTCTGCTGGACTTGGC
ATCGTCCGCCCTCCACGATCCACACTCCGGGTTTTCCCATTCAGCTCGGCTGCAAC
CGAGAGACAGACGGAAGAAAC

Sequence 995

TABLE 1
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TCCTCCTGGCCCTGTTAATGTCGGGGCCNGGCCGGGGGAGGATGGCGCCCTAGAACCCGG
CCTTGCTGGGGTAGGGCGGGAGGGGACGGGGTGGGGACCGCCATGTCGGAGGTGACCC
GGAGTCTGCTGCAGCGCTGGGGCGCCAGTTNTAGGAGAGGCGCCNNACTTCGACTCTTGG
GGCCAGCTGGTGGAGGCGATAGACGAGTATCAGATATTAGCAAGACATCTACAAAAGGAG
GCCAAGCTCAACACAATAATTCTGAATTCACAGAAGAACAAAAGAAAACCATAGGCAAA
ATTGCAACATGCTTGAAT

Sequence 996

CGCGTCCGGCCTGAGCCGGCGGGTCCCCTGTGTCCGCCGCGGCTGTCGTCCCCCGCTCCC
GCCACTTCCGGGGTGCAGTCCCGGGCATGGAGCCGCGACCGTGAGGCGCGCTGGACCC
GGGACGACCTGCCAGTCCGGCCGCCGCCACGTCCCGGTCTGTGTCCACGCCTGCAG
CTGGAATGGAGGCTCTCTGGACCCTTTGAAGGCACCCCTGCCCTCCTGAGGTCAGCTGA
GCGGTTAATGCGGAAGGTTAAGAACTGCGCCTGGACAAGGAGAACACCGGAAGTTGGAG
AAGCTTCTCGCTGAATTCGAGGGGGCTGAGAGGATGGCCACCACCGGGACCCCAACGGC
CGACCGAGGCGACGCGAGCCGCCACAGATGACCCGGCCGCCCGCTTTCAGGTGCAGAAGCA
CTCGTGGGACGGGCTCCGGAGCATCATCCAGGCAGCCGCAAGTACTCGGGCCTTATTGT
CAACAAGGCGCCCCACGACTTCAAG

Sequence 997

GTCCGGCCAGGAGCCAGGCCGAGCGGGAGCTGACCANGGCTTGACTCGGGTACAGAACGA
GGCACCAGTCCCCTTGCAGAACCGAAGGGCCTCGCAGTGGATGGAGGAGGCCAGCCCTGA
GGTCAACGCCAACAGGCTAGCCTGGCACGGGGCCTACAGGGTGGGTAGGCGGGCGTGCC
GCAGCCGTCCAGGGCCTTCCCTCAGGTCCCGGGCCGAGGGGCTACGCTGCGGGCCGGCA
ACAAGGCCCGACTCGGCCCTCGGGACCAGAGCCCCACCCGATCGGAAGGCGGATCCCTT
ACCAGGGCCATAGGCCAGTGACTGGGCGGGCCCCCTTNGGGCCTCCATTGCGGGCCCGGA
CTANGGAACNAGGCCCGNNGAGGCCCTTGGCCTACCAGACCCTTTNTNANGCCGACA
GCCGNCANGGAAAGAT

Sequence 998

CGTCCGGCCAGAGCCCGCAGCACGCCGCCGCCGAGCCTAGGTCACCTCCAGCATCTAG
CACAACGTCTGCAATGGAACAGGCGAGCTGTGAATATTTGTGGAATGCATGGGTGGACTA
AAGACCTATCACCTCACTCTAGAATGCCAGCATGTTGGAGCATGAGGACCAAGAACCAT
GGTGTTCCTCCACTCATCAGAGCCGTATCATTTTGATGCATGCGCCAAGAAAGAAAATTC
AATCATCAGACTGAAGCAATCAAATCCAAATGGTGCTGTAACTGAACCACACATAGAC
ATGCCATTCTTCTAAGGACCCTTAAGATCCACCCAGGAGGAGCGCTAGCTGCTGTTCCC
CATTGATGCCCTTTTCGGCCCCGAAGTAGCCGGAAGATTGCCCCGCCAAAATTCCTCC
TAACCAGCAAGTTAGGTGTGGCATCTTCCACAAGCANGGAGCCGTTGTAGGAAAAAGNG
GTCTTGGGGAAGGTTTTTCG

Sequence 999

CCCGCGCCGCGAGTTTCNATGGTGTGTAATAATTTGAGAAAATGAATGTGTATACATACA
AGAGTAAGTCAGATTGTTAGACTCATCCCTCAGTATTCATATGTTTTGTGACTGATTTT
ACAGTTCTCTACCTTTCTCATTTACAAAAAAGAAAAGAAAATTTGATTCAGC
AATTCCTAAAAGTATTGTATTCAGTGACATCTTTGAAACACCAAGTTTCTGTTATCAACT
TCAAATAATAGTCAAGTTTTATGTATGATCTAAAGGGAAAACAAGTTTGTCTTTTCAATCC
TGTGATAATTTTTCTTTAGAAATGAGGTGTTGCAAGAAATGGAAAATTAATAAACCCT
CTGTAACAATTTTGTGTGCTTCTTTGATTTTCTCTGTTTTTGTAAATGGGTACCTTA
TATTTGTACCTTTACATATTGAATTCATGAGGAGAGGTTATGCACAGCCTAGTTATTTGA
CATTCCAGGGGGTTTAAAAAAA

Sequence 1000

CCCGCGTCCGGCGGTGGCGGTGGTGGCGGTGGCGGCGGTGGCGGCGGCGGCGAAGGGGGC
GGAGAGGAAGGAGCGCGCGGGACCGGGCCGGGACAGCGCGTACTTTGGGCTCCGGGAGT
CGCTCCGCGCCCGCGGTTGTAGCAGCTGCCGCTGCAGCCATAGCAGCAGGTCAGTCATTG
GCACCATGAACTGGAATAAAGGTGGTCCCTGGCACTAAGCGAGGATTTGGCTTTGGAGGTT
TTGCCATCAGTGCTGGGAAAAAGGAGGAACCCAACTCCACAGCAGTCCACAGTGCCT

TABLE 1

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TTGGGGCAACCAGCTCTTCTTCTGGATTTGGAAAGTCAGCTCCACCACAGCTTCCTTCTT
TCTACAAAATTGGATCTAAGCGGGCCAACTTTGATGAAGAAAATGCCTATTTTGAAGATG
AGGAAGAAGATTCTAGCAACGTTTGATTTACCTTACATTCTGCT

Sequence 1001

CCGGCCGCGCCGCGCCGCGCCGCGCCACCGCCTGGGGGTTGGTTGAGGCGGACGGCGGGG
TCCGGGCGCGGAGTACGTCGTTCCCGCTGCGCTAGGGGAAGCGGGCAGTCAGAAAAATGGG
TAAGAAGAGTCGAGTAAAACTCAGAAATCTGGCACTGGTGCTACAGCAACTGTGTCACC
AAAGGAAATCTTGAACCTGACCAGTGAGCTGCTGCAGAAATGCAGCAGTCCGGCGCCTGG
CCAGGAAGAGTGGGAAGAGTATGTGCAGATCCGGACTCTGGTTGAGAAAAACGAAAAAG
CAAAAAGGTCTTGTCCGTTACTTTTTGATGGAAAAAGAGAAGATTACTTTCCTGATCTAAT
GAAATGGGCCTCTGAAATGGGGCTTCTGTGAGGGTTTTTGAATGGGTAACTTCAAA
GAAGAGGGGCTTTTG

Sequence 1002

GTGACACGCGTCCGACGCACCAAAGGGCAAATACTCGGTAGCGACTCAGAGGGAAAAGT
GGGGTCTCTCCTGGGAGAGCAGGAGGCTGCCAGAAAAGAACTCAGGTCAGGGGTGCATAG
GCGGCTGAGGAGTGCAGGACGGGCTGAGAGTTGGGGTGCCCTCCCGCCCGCAGGTGGGTC
CGCAGATCCCGCGGGCCGCATTGGCCCGGCTGCTGCGGGATGCCGAGGGGCTGCAGGAGC
TGGCACTGGCGCCGTGTACGAATGGCTGTGACGAGGACCTGGTGCCGGTGTGCGCGC
GGAATCCGCAGCTGCGGGAGTGTTGGCGTTGGGCGGCTGCGGGCAACTGAGTCGCCGGGC
GCTTGGGGCTTTGGCCGAGGGCTTGCCACGCCTGCAGCGCCTGT

Sequence 1003

CGCGTCCGCTTTNCCTTCTTGGTTCCACCTCAAACATCCCTTCCGAAGTGAGGCTTTCCC
TGACTGGGGAGCATAAAGTAGCATCTCTCACATNCCATACACCCCTACAACGAATCTATG
CAATGGCCCTGCTCTGCCATCGCCACCTGAAACCATCTCAATAAACACATTTTGATAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAGG

Sequence 1004

ACGCGTCCGTTGGCTGCGAGGAGCGCCCGAAAGGTCAGAGGAAGGAGCTGTGGGAAGCTC
GCAGCAGGTATCGGAGCTTAAGCCAGTGGAATTTGGGGGCCCTGGGCTCCCTAGCCGGCTG
CGGTGTGAGAATGGAGTGGGCAGGAAAGCAGCGGGACTTTTCAGGGCTCTGGGTTTGCAGA
GAGCCGAAATGACCATGACTGCCAACAAGAATTCCAGCATCACCCACGGAGCTGGTGGCA
CTAAAGCCCCCTCGGGGGACTCTGAGCAGGTCTCAGTCAGTCTCTCCACCTCCAGTTCTCT
CCCCACCAAGGAGTCCCATCTACCCGCTCAGTGATAGTGAAACCTCAGCCTGGAGGTACC
CCAGCCACTCCAGCTCCCGGGGTGCTCCTTAAGGGACCGGCACCCCCCACT

Sequence 1005

NCCACGCGTCCGGCAGCGCTGCGACGGGACCGCGCGATTCTCTCCACGCATCTGGCCC
GCGTTCCTGGGCCTCGGCACCGGATCCCGCGGGGGTGTGGACCCAGGGCCCACTCTCCC
CGGCGCGGCCAGGGCCCCCAGCGTGCGAGCGCCTAGGGGATGCCGAGCTGCTCAAGATG
AGGAGGTGCGCGGGGCCGGGGCGGAGCAGTCGCAGTTCCCGCGTGTGAGCCCCACCCA
TCCCTGGCGCCAGCGCTTTCCCGACCACTCGGGTTCGGCTATGCGGGAGCCGNGAGGAGG
AGGCTTGCACTCGTGACCTGAGACCTCGGGAGGTCATGCTGTCTTTAAGTGGCT
TNGGGGAAAGTGAAAGAAAAACNCCNAAATTGGAGGACTTTGCTACCAGGGACCTAACGG
CACCAGTGG

Sequence 1006

ACCACGCGTCCGGGAAAAGCCCCGAAGTGCCACGGGACTTCCTGTCTAAGGAAGAGCCTC
GTGAAGCTCCTCCACTGGGGAGTCAGTGCCCTTCGTTGTATCTGCCCCGCTTGTCCACCT
CCTAGAGTGAATCCCGCCTGGAGGCTGGGACACTAACCAAGAAGTGGCACATGGCATAT
CACGGGAGCAATGTTGCCGCTGTACGGAGAGTGCTGGACCGAGGGGAGCTGGGAGCAGT
ACTGCCTCCATCTGANGCCGTCTTTGAAGGGAGAACCTGGGGTAGGGTTTCAGGAGCCN
GCGAGAACTGTGCACCTCCTCGGGAGGAGCAGCCCCCTCCTGTGCTGCTTTCCCCCTCCC
TTCAATATGCTGGGGGCGGAGACCCTGGCCTCAAAGTGCAATTCCGGGACCCCAATCC
CAGCGGACGCACCAGGCTTAGGTGGGCGTCAAGTTGNTGTGTGCCCCCTGGCTTCTACA

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CCCCGGGACCCCCTTCCG

Sequence 1007

TCGCCACGCGTCCGGAAAAATTTATGCCTTTTTATTTCATAACCCAGCTGTGGACCACTGC
CTGAAAGGTTTGTACAGATGCATGCCACAGTAGATGTCCACATAATAAAATTCATAGTTA
CCAATGCAGTTTTGATATATCATTGGATTCTGTCTTTGAGTTGTAGGTTATTTCTTAGCT
GCATGTTTTAACTGAATTTGCATAGAGTTGTATGTTAATGTTTCAGTTAAGAGAAAAAC
TTAAGATACATGAGTCATTACATAATGGGTATGAAATCTTTATAATCACCTTCCACCCT
CTATGGTGTGAGTACACATCACGTGTCTAGATACTTAAATGTAAATGTAAACACTTTT
CCTTCCTGCTGAGGATGTTTAGAGCCTAGTGCCAGACCCATTCAATTCCTTTTGATT

Sequence 1008

GCGTCCGGGCGNGCGGAGTTTTGTCCATAACGTGGGCAACCGCGCAGCTGGAGGATGGCCT
CACTCGGGCCTGCCGCAGCTGGGGAGCAGGCGTCGGGGGCTGAGGCGGAGCCGGGGCCCG
CGGGGCCCGCCGCCGCCCTCACCGTCTCTCTGGGGCCCTGCTCCCCCTGCAGCGGG
AACCTCTCTACAACCTGGCAGGCGACCAAGGCGTCGCTGAAGGAGCGCTTCGCCTTCTCT
TCAACTCGGACTGCTGCGATGTGCGCTTCGTAAGTGGCAAGTTGGCGNGCCGCCGCCCG
CTGGGGGCCCGCAGCGCATCCCCGCCACCGCTTCGTGCTGGCGGCCGGCAGACGCCGTC
TTTG

Sequence 1009

GCNCCCCGCGTCCGTTAGAGCTCAGGAAGTTATTAGGTGCAGCCTCTGGAGCCATACTCA
CGCTGCAGTGCATAATGGGAAATTAGGAGCATTAAAGAAATTCAGTAGTGTTTGTA
AGGAAAATAAGCTACTTACTGAGATCTGTTTCTTCTATTGCATGTTTGCTTTTGAGGGAC
AGCTTCTGTCAAAAGTGAATCATCACCAGAACTGGGCCTGTTAGGAAGAATAGGGTTTT
ATTTACTTTTTATGTCAATTAACCTCAACAAAAAGGCCACGCTGGCTGCTGTCATGCCAT
CTGGGTATGCATTAACATTAATGATGATCAGCCTTGAGGTTCTATTTATCTTGATTTGG
CTTTATAAAGTTTTGTGCAATGGTGCTGGAGGNCCAGAAGTGCTAAGGAGAAAGAAGCTA
TGGGCCAAGTTAAAGAATTTGAATGCAAAGGCCAGGNATGGGAGTTTTTCATAA

Sequence 1010

CGCCNCGCGTCCGGTGAGCCCCAGCAAGGAGATCAAGATCGTGTCTGCCTGAGGAAGCAG
AGCCATGACAATCGGAAATCTACCAGCTCAATGTCCTGCATGTAGACTACCGGACCGTGA
GCAATCTGATTCTGACGGGCCCACGGACGATTGTCATGGAAGTCATGGAGGAGTTAGAGT
GCTGAGCTCCTGGGCCTCCCAGCCCTCCAGTGGCCTGTGGGTGAGGGAAGCCAGAATGAC
ACAAAGCAATGCAAAGACAAGATTGCCATGCAAATGGATGGTTTTGGACATACGAGTCTT
CTCCGCACATACATGTCTAAAGTTGAGTTTTATACACTGGAATGTGGAAGAACCCGGGTA
TCATATCTTTTTTAAAAAATGTCCAGTGTAGAAAACATTTGGGAAAC

Sequence 1011

ATTTTTCTAACATGGGTTTGAACGCTTATAACCAGTTTTATAAACCCCTTGAACACTGCA
GTGAGTTATCAAAGCCACTGCCTGCAAAGTGGATGATTTAAGATTTTACACGCATGAAAA
TGAGTGTGCCATCTCCTGACCAGTGCCTTTTGACTTAGGTACCCAGATGCCACTTGTCAG
CAGCAGGATACTTTTTACAACACGAAAGCATAATTATTTAGAGAAGAGAGTAGAAGGG
CAGAATAGAATTCAACTTACAGAAGCACCGGAGTAGTGTTGTGGTTGGCTGTTATCTGTC
CCCCTGGGAGGAGGGACTGTTTTGCTCCCTTGTTTTNGATGTTAAACAGTAGCTTAAAGG
CTTTCCCCCCCATACCAACTTACAGNCAAATGACAAAGAACCGGTGGNGGTTTTCAACAG
ATTCTACAAACATGCATTTTTCCCTTCCCACTAAATGGG

Sequence 1012

GTCAACNCGCTCCGCTCGTCCCTCCGTGGGCACTGATGTCACCGAGGGCCCTGCTCACCC
AGCCCCCACACTAGGCTGTTCCATGCAAATGAGGAGGAGGAGCCAGAGAAGGAGGT
ATCGGAGCTGCGCTCTGAGCTATGGGAGAAGGAAATGAAGCTTACAGACATCCGCTTGGA
GGCCCTCAACTCTGCCACCAACTGGATCAGCTTCGGGAGACCATGCACAACATGCAGTT
GGAGGTGGACCTGCTGAAAGCAGAGAATGACCGACTGAAGGTAGCCCCAGGCCCTCATC
AGGCTCCACTCCAGGGCAGGTCCCTGGATCATCTGCATTATCTTCCCCACGCCGCTCCCT
AGGCCTGGCACTCACCCATTCTTCGGCCCCAGTCTTGACAGACACAGACCTGTCACCCAT

TABLE 1
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TGGATGGCATCAGTACTTTGTGGGTCCAAAGAGGGGAAGTGACCTTCGGGTGGGTGGTGA
AGG

Sequence 1013

CGCGTCCGAAGAAAATGGGATCCATGAAGAACAAGACCAAGAGCCACAGGATCTCTTTGC
AGGGGATGGTATGAATGCATATGTAGCCTACAAAGTTACAACACAGACAAGCTTACCATT
GTCTCAGAAGCAAACAGTTTTGCAGGTAAAAAGNAAAGATNTTAGTGACTTTCTTGGGT
CTTTATTGAGAAGCTTTCCNGAGNAAGCCACTCTCAGAAATTGGCTTCATATGTTCCCTC
CCGCCCCCGGAGTAAGNAGCCCTCATAGNGGGATTGACATAAAAGTTGAAAAGNTTGNGG
AACGGAAGAATTCTTTCTTCTGGCAGNAATTTCTTTGAAAAAACNGAGGGGCCCG
CTTTAGAAAAAGGGTACCCTTTCAGGAGGGATTGTTAAAATTCANTCCTACCCCATGGT
TTAACAAGGGACTCCTTGACNGTTCAGTAAGTAGGTTTCTTTGNNAAAAAGGAAAGGAA
GCTGCCACCGTGCCCGTNGGGGATACCCNAAGACAATTGANGTTGGGTGGCTTGNTC
CTTNTCTCAAAGGAATGGTTTTCAAANCAAAAAGCCCAAGATTGCCNGTCCANGCC
AAAAAT

Sequence 1014

GTGCCCCCGCTCCGCGGNCGCGTGGGGTGCTNGTCACCAGACTGCACCCTTGCCAGCAG
CTTCGCAGCTCTCGAAGTAANTTATCGCANGATGGCCGGCGCCTCACCTAGGAGAACCAG
GAAGGCAGGCCNCGCTAGAACGACGGNATTGAATTTTACTATTGNCAAAACAATCACATT
CAAATTCATTCCACTTAAACCTGAAAACATTGGACCACACAA

Sequence 1015

AGTCGACCACGCGTCCGGGCGGAGGGAGCGTGACTGCGCTGCGCAGGGCGCTAGGAGGCA
TTGTCGCCGCTCAGGCCCTTTTGTGAGAAGCAGACCAGCCTGGGGGCTGGCGGCAGGACA
CCTGTGCTGCTGCTGAAGAAGATGGGTGAGGUCGTGGCCAGAGTAGCAAGGAAGGTCA
ACGAGACGGTGGAGAGCGGCTCTGACACTCTGGACCTGGCCAGAGTGCAAGCTGGTCTCCT
TTCCATTGGCATCTACAAGGTCCTGCGGAATGTCTCTGGCCAGATCCACCTCATACCC
TGGCTAACAACGAGCTTAAGTCCCTCACCAGCAAGTTCATGACCACATTGAGTCAGCTCC
GAGAGCTCCACCTGGAGGGGAACCTTCTACACCGCCTCCCCAGCGAGGGTCAGTGCCCTG
CAGCACCTCAAGGCCATTGACCTGTCCCGGAAACCAAGTTCCAAGGACTTTTCCT

Sequence 1016

CGCGTCCGCTTTCAGTGAAGAAAAGGGAATTACACATNGAATCGACACATCAGTAATACC
GATACAGTGAATGGGCCTCTAATAAGAATTTNAGCGNGTTTTCTGATGTGCCATTTTTT
TTGTCTTTTTTAAAAATATACCATANTTATAAAANTGGNAAATANNTTTTTGNACACCAT
TTAAATTGACCCCTTANAGNACNCTTGCCGTNATGNTGAAANGCTAGACCTATNGAAGC
TGNCCTGANGATATNTGTTTTTTAAAAAAATTTTTTACAACNTACTTGTGGAAAATA
TAATATGCACTATAAAATATGATCNTATATCCTATTATCTATNATCTAAAAACACTTCCT
TGGACNCATTTANACGTAAATTAATAATGGGTCTTTAANGAAGANTAATGGGGAGGCC
CTTTTTTAAACCTATGGNNCAATCTTTTTATGNCAAGGGGNGGACCATTTTATAAAA

Sequence 1017

GCGTNCGCTGCGCCCGTGGGACCGGTGAAGTTCTGGCGACCCGGTACAGAGGGGCCAGGT
GTAAGCATCTCTGAAGAGAGACAAAGTCTGGCTGAAACTCTGGGACAACGGTTGTTTAC
AACCCTTATGCTGCCCTTTCCATAGAGCAGCAGAGGCAGAAGCTGCCGGTATTCAAGCTT
AGGAATCATATTTTATACTTGATAGAAAATTATCAGACAGTGGTGATTGTTGGTGAAACA
GGATGTGGGAAGAGCACACAGATTCCCTCAGTACCTTGCAAGAGCCGGCTGGACAGCTGAA
GGAAGAGTGGTAGGAGTGACCCAGCCTCGAAGAGTGGCTGCTGTTACACATGATCTTTCT
TNCCAAAGGTTGCAGGGAGAGTAGCTGAAGAAAGGGGTGCAGTGCTGGGCCACCAAGGTGG
GCTACTGCATCCGCT

Sequence 1018

AGTCGCCCCGCGTCCGGTGGGAATCTTTCNACTTCTTGATCCATCTGGGAGAGAAGACGT
ACCATTATGTGCCCGAATTCGAAAAGTGTCCATAGCAGCTACCATCATCTATGCCTATG
CCTGGCTGGTTCCTCTTGCACTCTGGGGTTTCCTCATGTGGAGAAACAGCAAAGTTATGA

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ACATCGTCTCCTATTCATTTCTGGAGATTGTGTGTGTCTATGGATATTCCTCTTCATTT
ATATCCCCACCGCAATACTGTGGATTATCCCCAGAAAGCTGTTGTTGGATTCTAGT

Sequence 1019

GGAGTCGCCACGCGTCCGGTGGCACGATCTTGGCCCACTGCAAGCTCCGCCTCCCAGGTT
CACGCTATTCTCCCGCCTCGGGAGCTGGGACAACAGGTGCCCGCCACCACGCTCGGCTAA
TTTTTGTATTTTAGTACAGACGGAGTTTACCGTGTTGGCCAGGATGGTCTCGATCTC
CTGACCTCGTGATGCACCTGCCTTGACCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCA
CTGCGCCCGGCCAATAATTTTTTTAGTTTAAGTTTCATTTTTGTCCCGCTGATGAAAGTT
ACAGCAGCTGCCAGTGCCCTCTGTCCACACCCACCTCCCTGGTGTACTTGCCCCCTACAG
CAGCAGCCCAGATCCTCCCTGGATTAATAATTGCAACTGGTGCCCTAACCCAAAACCTGA
GAAAAAATTCTCTATCACATCCACTCTTCTGGCATTGTAGAAATCTC

Sequence 1020

GTCCGGTNGATATATATATTTACCTCCTTAGTAATGCAAGAAGTGTTTGTGGGAAGCAGA
GAAGCAAGCAACTGTATTTCTTGTCTCACCTAAGCATTACTGGAGGATAAGCCACATCA
GTCTACAAAGAGGTTTTATACAAACATAATAAGATGTAAATGGACCAAAAGTTGAAAG
CACATTCTTGCAAGTAAGCACCTGTTACTCTCCAAGCAACCATGGGTTTACCATATTTGG
GGATTTTTTGAACACTTAGNCACTTTCTTGCTCCCAAGGGGACNTTTACAAAAAGTGNA
NACATTTTTGTANTGTNNCCCGTTATTAATAAAGCTAACNTTTGTAACTNCTTGTTTT
CAAAAGGGCTTGGTNTTTTTGGACAAATCAAAAATGGAAAAATGGATTTTCCACCGTTT
TAAGCCTCAATTTAAGCCCCAAGGTTCCCAAAAATTTTTAANGAAAAAGTTATTCGG
GTATTAGGTNGGNCCTGGGTTAAAAAACCAAGAAANAAACCATNAAAAACAAAGCCCAT
CAAAAATTCTTNTGGAAAAAA

Sequence 1021

CAGGGAGTCGACCCCGCGTCCGAGCATCTTGGGGAATTTATATTCCTTTGTGAGAAATGT
TTTGATCATAAGCCTAGAAATGATAAGTAAAGAAATAAGATAATTCTACTGCTTGTCT
CACCCGGTTACAAAGCATGAGTTTGAAGACAATAAGTGCCTTGTCACATTTTGCGAGAG
ACAACAGTAAAATACTCCAAAATACGTTCTTTTCATGGTCAGTGTCAGCTTGATTTATGT
CGACATGAAGTTCGGTATGGCTGTTAAGGGAAGATGAGTGCTTTTATGCCCATAGTCTT
GTGGAAGTGAAGTCTGGATAATGCAAAATGAAACAGGTATCTCACATGATGCTATTGCT
CAAGAGTCTAAACGATATTGGCAGAATTTGGAAGCAAATGTACCTGGAGCGCAGGTCTTG
GTAATCAAATAATGC

Sequence 1022

CNCGCGTCCGCAAAGCAAACGACAGCTCAGGGGGCTCCAAAGACCTCATTATAGCAGCA
AAAGGAACTCAGGTAGTCAAAATATCAGTACACATGGGACGTGTCAGTTTAAACAGGAG
CCCCGGAAGAGTCATAGTCCAGCAGTGACACATCAAACTAGCAGCTGAAAGGGACTTG
AATGTGACCATCAGTCTTAGTACTGATAGACAAAGCAGCGATCACAGGCAGTAGCAAAC
GAGAGGGCACACCCTGCCAGCACAGCAGTGNCGAAGTCTGGGGAAGCCATGGCCTTAAAC
AAACTAAGACTCAGAGCAAAGAAGTCAATGCAATAAACACAAAGCCAATACGAGTCTT
CCTTTTCCTAAGTTCACTGTCAATTCAAATCGCTTAAGGAAGCAATCTATTAATGAGACA
CCTTTGGGAAGTTTGTCAAAGGATGATGGAGCTAGAGGGGGCTCATGGGG

Sequence 1023

CNCGCGTCCGGCCAACCGCCGAGGAGCAGTGCCCTATTCAGCACAGTGCGCCAGGGCCAC
TGGCAGATTGTTGATCTTTTACTCACCCATGGAGCTGATGTCAACATGGCAGACAAGCAG
GGCCGCACTCCCCTGATGATGGCTGCTTCCGAAGGCCATCTAGGAACCGTGGACTTTCTG
CTTGCACAAGGTGCCTCCATTGCTCTTATGGACAAAGAAGGATTGACAGCCCTCAGCTGG
GCTTGTTTGAAGGGCCATCTCTCAGTAGTACGTTCTCTGTTGGATAACGGAGCTGCCACA
GACCATGCTGACAAGAATGGCCGTACCCCACTGGATCTGGCAGCTTTCTATGGCGATGCT
GAGGTGGTCCAGTTCCTGGTAGATCATGGGGCCATGATCGAGCACGTTGACTACAGTGGA
ATGCGCCCTTTGGATAGGGCAGTGGGGTG

Sequence 1024

GTGCCCCCGCGTCCGAGAAGTCAGGGAGTGGAGGTTCTATAAGGAATTAACAGCTGAGGA

TABLE 1
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CGGAAGGGTTTGTTCCTCCGTTGAACCTAAACGCAAGTGGAAAAGAATACTCAGAATGTA
TTTTTCTACTTTACATCTGCTGGGGAAGGAAATGTGTCAGGAAGCCGCTGCATCTGGTCA
TTTCATCGCATCAGAATCACAGCAGACGTGGAAGATTCCATGTGGTGGGGAATAAAGAAA
TAACTTTATGCTCTCCTGAAAAACAGCGGGAGCCTATGTGTGTGTGCGACACTGTAATCT
CAAGGAGATTCACTCAGAGCTGTCTCAGTCCAACCTCCTGCATGACCAGATCTTCCCTTAG
CATCTTTTCTGTGATGAAATATTATCTTGTGTTAGAGTTAGGAATAGGAACTAACCTGTA
GGAGCATGTCCCCAAATGGACATTTGAATGGACTAACAAAAACAACCTGGAAAGACTGAAT
TTCCGACACAAAGGAATGATGGGATCAAAAAGAAAGC

Sequence 1025

GGAGTCGACCCACGCGTCCGGTCGACAGCCTCCGCCACATCCTCCACCTCTCTTGGTCCA
GCGAGCGTTGCCGGGCCAGGGTCAAGCGGAGGGCTCCGACGGCGCGGACGGAGCGAAGCG
CCGAGCCATGGCGCACAAACGGGCATNCACGCCACGGGAAGAAGCTGAAGGAATCTTT
GCCAAGGCACGGGCTGGCTCTGTGCGGCTCATCAAGGTTGTGATTNGAGGACCGAGCAGT
NTCGTGCCTGGGTGCNCTTCGCAAGGGAGCCAGNTAAGGCNCGCTNGGGGATCAGGGACT
ATTGAACAGGNGGCCCGTGGCTTGCNCACCTGCNTGGGACCGCCCCAGGCAGGCCCTGCN
TACCTGGCTCTACCGCGCTTCGACTNACAAGAAATGGCTCAGGGGNCTTTCGAAATGGGG
CTTCTTTCCTTCGCCCTTGGTTCCGCNCTNGAATAAACCTCCCCCGTGGCGGCTTGAA
AGANTGCCTGTACCGCCGGNCAATGCNNGGCCCCACAAGTGGAAAAAGGGAAG

Sequence 1026

AGGGAGTCGACCCACGCGTCCGCTCCCGCCAGGCGCTTCTCGGACGCCTTGCCAGCGG
GCCGCCCGACCCCTGCACCATGGACCCCGCTCGCCCCCTGGGGCTGGNGATTCTGCTGC
TTTTCTGACGGAGGCTGCACTGGGCGATGCTGCTCAGGAGCCAACAGGAAATTAACCGC
GGAGATCTGTTCTCCTGCCCTAGGACTACGGACCCTGCCGGGCCCTACNTTCTCCGTTT
ACNTACTACGACAGGGTACACCGCAGTAGCNTGCTCGCCAGTNTCCTGTTACNGGNGGGC
CTGCNGAGGGGGCAACCGCCCAACCAATTTCTTACACCCTGGGGNAGGGCTTGCCGAAC
GAATGCCTTGCTTGGGAGGGATTAGNAAAAAAGGTTTCCCCAAAAGTTTGCCCGGCTGG
CAAGGATGGAAGTGTGGGACCGAACCAGGATGTGAAGGGGGGGTTCACCAGAAAAAA
AGGTTATTTTCTTTAATCTTAAAGTTTCCANTGGAACATGGTNGAAAAAAATTTCTT
TTTTNCGGGTGGGGGTGGTTCACCCGGGAAC

Sequence 1027

CGTCCGTAGTCTCTCTCGTGGCCCGGAAAAAAGAAAGAAGGTTGGGGCCAGTCACC
CCCACATCCCTTTATGGAGGCTTCCAGATCATGGATCCTGTACGCGCATCCCGGTGAAG
AGAGTCCACCAACAGGCTTGTATGGGGTCTCGCTCTGTTGCCAGGCTGGAGTGCAGTG
GTTGATATGGCTCACTGCAGCCTCAGCCTCCCTGGGATCAAGTATCCTNTCACCTCAG
CCTCCCAAGTGGCAGGGACCGCAGGAAGGCCTGGACGACGGCCCGGACTTCCTCTCAGAA
GAGGACCGCGGACTTAAAGCAATAAA

Sequence 1028

CGCGTCCAACCCCTTCTCAGCCTGTGCGGAGCAGAGGGCAGTGGCGGTGGCCCCAAAGG
AGGGACCGCTGACAAAGGAGCCTCAGCCAACCAGGAAAAAGGCTAAATCCACCCTTACCC
CTCCTGACCCCCCAAGTGGAGGGAACAGATCCTGGCCTGAGGGGTCTAGCCTGGAGCA
GGCGCCTGCGCCCAGACCCTGGAGAGCCTTGACCCAGAGCCTGTGCTGAGGTCCAGGGAG
TGTGGAGAGCTCCTGGTGTGAGGACTGAGACTGACAGGGGAGCCCCCTCATCTGGCCC
CCTTCCCTTTCGCACTGTCCGCTTTGTGAGGCTCAGAGGAAGGACAGTCTGCAAGCCCG
CCTAGGAGGTCCATCCCCAGCAAATGTTTTGGAGGTCCCCCAGAGAGCAAAGTGGGCCA
TGGCAAGAAGTAGGGGGTGGTTGGACCTGTCACATGAAATGGATCAACACTTGAATGGG
GA

Sequence 1029

CGTCCGGAGAAGATGGGCCTCCCGGGCTCAGACTCACAGAAAGAGCTGGCCTGACCACCA
GGCACCTCACTGGCACTGCTGACCCATCCCAGAAACACAATCTCAGGGACCCGAGCAGCT
CCAAGGACGAGAGGATACAGCAGACACAACCTAATAGAGAGGGCGCCTGCAGCCTTAACC
TCCACGGCCTTCGATACTTATGCAAGCCTGGTGTGCTCCTGTCTCAGAGTCATCCTGC

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GCTCATGCCTTTTCCCGAATGGGTTACCTCTGGCAGTTGCCGCTTCAGTCTTGGCCTTA
GCCTCATCTTGAAGTGGGTAGCTGGCGGGAGAGGGTGGGCTGCGCCCCCTGCTGGCCCTG
AGGCTGCAGAGTTGGGAGCAGGACACCTCACCTGAGTTTCATTTTTTTTCATGTCCAAAC
CATGCACATACTATAGTCCAGAATCAAAGCACTTTTAAAA

Sequence 1030

CCCCCCGCTTTTTNNANNNCNCGGGGGGTGNGGCAAACTTTTTCTAGAAATTNGCGCC
ATGTTGAAACNNTNTNCAGCANCCCGCTGCACAGGGNGTAGCCCANCTCCAGGTCC
ACGGAGTGGTGTGGACCTCCACCTCACAGCTGCCTCTGGCAGCCAAGCCTCTTTTCGCC
CGGCCCCAGCCCCCTCTGGTTGATAAACGGGTGGGCCCTCCTCAGCAGCGTGGCTGCCTTC
ACCTTGATTTCCCCAGGGCTCTCGGCAACATCGATAAACCAAGCCTCGCCACAGCTGG
GCCCTCCCCACCCAGTCTGCCAGGCTGGGAGCTGGAGCTTGCTGAGTCTTGAATGCCCT
TCTAGATGGCTTCTCTAGAGGCTCTCCTGGCAAGAGAGGGTCCCAAGGGGAGCCCTGCAA
AGCAAAGGCTCCTTGTCTGGGGCGGGATAGAGAATCTCGCCTCTGTCTGGTGTGTACCT
ACTGGGGGCACAGGAACAATTTCTCAAGGAGACAGTGGCATGGAGCTTTGAAAGACGAA
GTANGTGTAGCAAGGAAATAAGGAGGAACGGGGTTACGGGCAGAGGAGAAAGCACATG
CCAAGTCAGCAAAGAAAAGTAGAATTCGAAAACTTTTTTA

Sequence 1031

GGCCAGAGCTACTACGCCGGCCGATGGCGAGGAGCCCGCCCCGGAGGCTGAGGCTCTGGC
CGCAGCCCCGGGAGCGGAGCAGCCGGTTCTTGAGCGGCCTGGAGCTGGTGAAGCAGGGTGC
CGAGGCGCGCGTGTCCGTGGCCGCTTCCAGGGCCGCGCGCGGTGATCAAGCACCGCTT
CCCCAAGGGCTACCGGCACCCGGCGCTGGAGGCGCGGCTTGGCAGACGGCGGACGGTGCA
GGAGGCCCGGGCGCTCCTCCGCTGTCCGCGCGCTGGAATATCTGCCCCAGTTGTCTTTTT
TGTGGACTATGCTTCCAAGTCTTATATATGGAAGAAATTGAAGGCTCAGTGAAGTGTTCG
AGATTATATTCAGTCCACTATGGAGACTGAAAAAATCCCCAGGGTCTCTCCAAGTATAGC
CAAGACAATTGGGCAGGTTTTGGCTCGAATGCACGATGAAGACCTCATTATGGTGATCT
CACCACCTCCAACATGCTNCTGAAACCCCCCTGGAACAAGCTGAACATTGTGCTTATAGA
CT

Sequence 1032

TCGCCCCGCGTCCGCAATTTCTTTTGAATTCGATCACTTCTACATTCAGCTTGCCAC
ACTCTTTTTTGATGAAGTTGTGAAGCAGATGGTAGCTGCCTTTGAAAGAAGAGCATGTAA
GCTGTATGGTCCAGAAACAAATATACCTCGGGAGTTAATGCTTCATGAAGTCCATCACAC
ATAAAGGCAAAAAAGAACTGGTGCCACCTGCTTCTGACTTTAGTTTGTTCATTTTAGGA
AGTATTTTCATGACATGTTTTCAGAAGCCAGAAAGCATTGTAAACGCAGCTTTGGTTA
TAAACCTGCACCATTTGAAAAATTCACATAGAATATAGACTCACTTGTACATAGAATTAT
TTCTTCAAGTATAATTCAAATAATATGGACATTATCATGTTCTGCATTACAATAATGGG
ATGTCATCACCATTGCTAGAATACTGGCATGATTCTTCTGAGCAGAAGTTGAAACTGTAA
ATTTAAACCTTTTAATTATCACCTTACCT

Sequence 1033

NCGCGTCCGGCCTTTTGTTGAGCTTGCCGGGCAACCGGCCCTGCTGGGGACTACAAGTC
CCGTAAGCCTCCGCGGCGGCACGTCTACCTACACTGTCCAGCCGGCTCCCTTTTTCCC
CCTCCCCGGGGGCCAAGGGCTCCGGCTGCTGCCTGGCGGCCAACGGGCCAGGTAGGATT
CCGGGAGAGGCTGCTGTGGAGGCTGAGGAGGCGGCGGCGGAGATCTGGAATGAATTTCT
ATCTGTGAAATTGTGAAGACGAAAAAAGAAATTTGTGCTAGTTTTGCTGTTGTAACAC
ATTGCAGAAGTTACAATCACAGTGCACAAAACAGTATCTCACCTCCCTAACTGGTTAAT
AGTGGCATGGAAGATCCATTTGAGGAAGCAGACCAGCCCACTACAGAGCCAGGCATGGTC
CTGGACAGTGTGGAAGCAGGAGACACAACACCTTCTACCAAAAGGAAGAGCAAGTTCTNA
GGCTTTGGCAAGATCTTTAAGCCCTGGAATGGAGGAAAAAAGTAGTGATAAATTT
A

Sequence 1034

CGTTTTNNTTCTTCCCTTGGATNAATATTTTCTACTGAAAAGAAATGAAATCTCAGTTCC
ACTATGATAAAAGAAACGAATCACCAGTGTCTGTGAGTGGCCCCACTGCTCCTCCTCATA

TABLE 1
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CCAGCATTGACACTGGTAGCTGAGGAAGGGGACTGCTCAATTTCTAATGTGATCTATTCA
AGAAGCCACATATAAAAAGGCATTGAGGGCTCACTGTCCAGAGAATTGCTTTTGTAATG
CTCCACAACGTATGGGCAAAAGTTTAAGGACTACTGCCTGATGTACCAGGAATCCTGAGT
TCTGTGAAAATCTGTTTCATTCCAAATCTGTTAAGCATTTCCAAACATCCAGAGAATGGTT
TCACTGTTGAGGGTGTCATGTGGCAGAATCTGTCTCTCTCTGCACCTGTCTTCTGTTACCA
TCCCTGGACAGTGACAGATTTTAAGCCAGCCACCAGAATTCTTTTCGAGTTAACCATTTC
TTAGTTTCTGTAAA

Sequence 1035

GTGACCACGCGTCCGCTCTGACCGCCGCGGCTTTCACCCACCTGCCCGGCTCATCACC
TCTGACTCCTGCGGGCCTTCCAGCCGCGCTATCTCGAGCCCCCGACCAGCTCGGCCTG
CTGTGCGGCATCTCTGCTGTCTCCGGCTGTAGGGCTACCTGCCTCCCTCCCGGGGGTG
CACTGCGAGTCCGACTCTAGTGGGGGCAGCGCCTAGCGGACTCCCAAACCCGCTCAGGTC
CTGCCGGCCTCACCGGCACCGCCACCCCTCCAGCCGCGCGGCTCTGCGCTTGCGCGCC
GGCAGCACACAGTGTTAGGGGCGCGCCCTCTGCTCTGGACATGCGCCGCGCTCG

Sequence 1036

GTCCGCCCCGCGTCCGGGAAAATGCCGAGTTTGTTGCCTTGAAACCTAAGAGCAATCCT
TGGTTTTGTTGCTACATTATTTTCCAGACCAACACATCTACCAAGTNGAATTTTATNNA
CTTTAATTTTATAATAAAGTTAGTAGAGTCACTCAACTTACAACTTTATTTATGNTGGC
TTTGGGCAAAAAAATCACTTATAAGGCAGCTCTAAATTTGCCTTGATAAGCTAAATAAAT
TACTTTTATAACTTACTAAAGCAGAACAAACAGTGAACTTTCTAAAATATTCTATNCTG
GAAATAGNGGACAGGGGGATCTTTATTTATAATNCTCATCAAGATGAGTGAGGTTGTTT
ACCAGGATATTTTTATGGTTTTTTTTAATTTTTCTCCAAAGNAATTATTTTAATAGG
AATTCCTAAAAGNAATCAAGAAATTAGTTTTTCAAAAATAAATTTTTTCCAGNTNGATAA
AAAGGAAGGTNGTTTGTAAATTAATCCATTATTTTACCACCTTAAAAAATTTGGGGGG
AATACCATTCTAAAGGGAACCTTTTAATTCCTTACCTAATTCANGNTAGGGGNGTCTTGG
CAATTTNGAATANTTTTCNTTT

Sequence 1037

GCGTCCGAAAAATTTAGGTAATGTCATAAAATTTATTTTACCTTTCTCATTTTCTGAGA
AAATAAATGAAAAAACCTAGATATTGCTTTATTACCAACAGTGTGTAGGTTTTGTAC
ATATGGAAATTTGACACAAAAAATAGGGAATTTGTATAGAGAAGTTTCCCTCTTATAAA
AGGACTCCCATTTGATTGTTGAAACTATAAAATGCATTTTACTTTACCATATCTTGAA
ATGACAAAATATCGCCCTTTGAAAACTGACTCTTTGCACCGTTGTAATTTCCAGAGT
CTACCTCAGTTAACCAGGCCTTAGTTTTAGGCAAGGAATGAATTGAATTAATTTTCACT
TCAATCATTTTATGCCAGAATTTGTTTTCTTTTTAAGGCACCATCCTTCCCTCCTTGG
CTGGNTGGCCCTTCCCTCCCATTTAACTTTCTTTTTTAATNCTTTGAAAAATTGGGT
TTAAAAATATTTCCAATCCTTTTCTTTTCTCTAGCCAAAGTNGGTTTTGTNATTTNCN
AAATAAAAGGGCCCTCTGGTGGAANGGNGCTGGAATTAACCTT

Sequence 1038

CGCCNCGCGTCCGCAAGACTTTGAAAAATNNGATCATGGTTCTTCTCAAATACCAGCAT
GTCTAGCATCTATCAGAATTGTGCAATGGAGGTTTTGATGTCCAGTTGTTACAGTGTAG
AGCTTGTGGAGCTTTAGTTTATGATGAAGAAATTATGGCTGGATGGACAGCAGATGACTC
AAATTTGAATACAGCTTGTCCATTCTGTAAGCAACTTCTTGCCTCTTCTCAATATAGA
ATTCAAAGATTTGAGAGGTTCTGCAAGCTTTTCTGAAACCAAGTACCTCTGGTGACAG
TTTACAAAGTGGAAGCATTCCATTGGCAAATGAATCCTTGGAGCACAAACCTGTATCCAG
TTTAGCAGAACCTGACTTGATCACTTTATGGACTTCCCAAACATAACCAGGATCATAA
CTGAAGAAACAGGCTCTTGCAATTGACCCAAAGTGATGAAATAAGAGAGCCAGTGGGAGA
TGTCAAAATATTGAAAAATTCATCTGTGNCTTAATAGGTTTATC

Sequence 1039

TGANATTAGCATCACTTCGTCTACTAAGAATCTTAATAGATGTAAAAATATCTTTTAAAA
CATATGGTAGGATGGGTAAAATTTGGCAATACTATCCAGGAAGTCACTAAGTACAGATGA
ACTGATTTAGTCCTAATTCGAAGAGTGATTCCACCTACTTGACTAGAAAATTTATACC

TABLE 1
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TGGTAATAACTCCTTGTCCTTGAAGATTTCAACTAAGGAAAAGTGTTCAGCAGGAC
CTGATTATGCACTGCTATCTAGGTAGGGTCACTTATGGTTTTATAATATATTTAATTGGA
TTATAATATTCCTTTTTCTTGTCTCTTGGACAAAATCCTAGCTTTACTGTAATTTAAAA
AGATGAGTTTAAAATTTTCAGGCTTTAAAAACATACCAAACATTGATAAAAATGAAATCTA
GATAAAAGTATTTTATCAATGTTTCAGTTGCCTGGATTCAATAACTGTATTATGGTTATGT
AAGGATAATATCTTAGGAAATCACATTATGGTATTAA

Sequence 1040

GTCGACCCCGCGTCCGGTAGCTTAGTTGAGTAGATAATCTTTTGTGTTTCCTCCTTGTA
ATATACAAGCCTTGGCTTCTGTGACATCATACTCTCCTAGATTTCCCCCTGCACTGTGG
CTTCTTCTCAGTCTCTGTCCATCCCTGGTGCTCCTGAAGGTTCTGTTCTCAGCCTTACAC
ACATTACCTGGGTGATCTCATTCTCTGCCATGACTTCACTTGCCATATATGTGCTGATTT
TCCCCAAATTCCTATTTCTCCCGACCTTTACATCTATTTTATTTGCAGGTCATATATCTA
ATAAGGAATTGATATCCAGTGACATGTAGAAGTCTGTAAATCAATACAGAAACCAAAC
AGTCCAATTAATAAATGGAGAAGAGATTTGAATGAACATTTTCTAAAGAACATCTCAAG
CTCAAGATTTCCAGATAACTTTTCTTCTCAAATCTGCTTCTGTGTTTCCTCATCTG
TAGGTGGCACAGCATACATCTGATTTCCCAAGCCAGAAACCTCATAGTTATTCTTGACTC
CAGGAAGAAATATTATTGAGTTTTTAAAAACTC

Sequence 1041

CGACCCCGCGTCCGTGCTGAACTGAGCTCAGGTGTGTTTTCTTCCAAGCTTTCTAGCAA
GGTTTCTACTTAAATCACCTGTGTGCAAGCCCAAAGGACATTTTCTATTCTAAGCAG
AAAGGCTGTTTTGTTTATTACAGTGAGTGCTGTTTCTCATGAGTGAGGAGGAGCACTA
AACCAGGAGACAGAGGACATGGATTTGGTTTCCAGCTTAACCAGTTAGGACTCTGTCCTC
TGCAATCTGGAACCATGATGCCTGCCTGCCTCACAGGGCTGTTGTGAGGACCAGAT
GAGATGATGTATGTTTACTACTTTTGAATCTCTAATTTAAAGTCTTAATATTTTGTCTTC
TGAGTGTGAGGGGATAAACCTGGATGTAGACTATTAAGCAGCATAGGAGAAAAGAACAAT
AGAATCTAATGGACTGGGTTTGAATCTCTCTCTAATGCACTGCTTCAGACAAAGTGAA
ATCCAAAGGTGTGAAAAAGTATAGCTGCAAATTTGAAAAATGTGTTTCAAGAGT

Sequence 1042

AGTCGACCACGCGTCCGCTCTGACCGCCGCGGCTTTTACCACCTGCCGGGCTCATCACC
TCTGACTCCTGCGGGCCTTCCAGCCGGCGCTATCTCGCAGCCCCGACCAGCTCGGCCTG
CTGTGCGGCATCTCTGCTGTCTCCTCCGGCTGTAGGGCTACCTGCTCCCTCCCGGGGGGTGC
ACTGCGAGTCCGACTCTAGTGGGGGACGCGCTAGCGGACTCCCAAACCCGCTCAGGTCC
TGCCGGCCTCACCGGCACCGCCACCCTCCAGCCGGCCGCGGCTCTGCGCTTGCGCGCCG
GCAGCACACAAGTGTTAGGGGGCGCGCCCTCTGCTCTGGACATGCGCGCCGCTCGCGAGCGT
CTCTGGGACCGGAAGTGCGGGCGAGCGCGGNTCCCCGGGTCTGACAGGAGCAAGCTGTGG
GCACCGNGGCGGTAGTTGGAGGCGGNAGAGGGTNCGTAGCCGNGCCGNCTGCCCGNCATG
GGCCTNC

Sequence 1043

AGTCGACCCCGCGTCCGCAGGGGCGTGTGGCCCCGCACAGATTGAGCCGAGTTGTGCGC
CCGCTGGGAGAAAGTGACCCTCCTGCGCCTGAAAAGAAATTTTCAATATAGGTGACT
ATGCAGCCTGCAATTCAGTATGGTTTGGAGAAGATCTGCCTTAAGTCCTCGGAGTCCT
CTGACTCCGACACGACGAGGATTGGCTAATGTTTGTGAGTACGATGAGTGGATAGCT
GTGAGGCATGAAGCCACTTTGTTGCCATGCAAGAAGATCTGTCAATCTGGTTATCTGGT
TTATTAGGTATTAAGTTAAGGCAGAAAAATTATTGGAAGAACTTGATAATGGAGTACTA
TTATGTCAACTGATTGATGTTCTTCAAACATGGTGAAAACATGCAACTCTGAAGAATCA
GGGAATTTTCCAATGAGAAAAGTGCCCTGTAAGAAAGATGCTGCATCAGGTTTCAATCTTT
GCTCGGGACAATACCCGCAAACTTCCTTCACTGGTGTAGGGACATTGGGGTTGATGAAAC
TTA

Sequence 1044

ACGCGTCCGCCCACGCGTCCGGAGTCCTCCTCCCCGGGTGCCTGCCCGCAGCCCCGCTCGG
CCCAGAGGGTGGGCGCGGGGCTGCCTTACCGGCTGGCGGCTGTAACCTCAGCGACCTTGG

TABLE 1
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CCCGAAGGCTCTAGCAAGGACCCACCGACCCAGCCGCGGCGGCGGACTTTGCCCGGTG
TGTGGGGCGGAGCGGACTGCGTGTCCGCGGACGGGCAGCGAAGATGTTAGCCTTCGCTGC
AGGACCGTGGTGAAGCCTCTGGGCTTCCTGAAGCCCTTCTCCTTGATGAAGGCTTCCAGC
CCGCTTCAAGGCACACCAGGATGCACTTGCCACGGNTTGCCGTGCCCCCTNTTCAGCAGT
CCCT

Sequence 1045

GTCCGCAGAATTGACNAATTGAGGAGGTGTAATAAATAAACAGTGTTCTCTTCTACCCC
AAAGCCACTACTGACCAAGGTCTCTTCAGTGCCTCGCTCCCTCTCTGGCTAAGGCATGC
ATTAGCCACTACACAAGTCATTAGTGAAAGTGGTCTTTTATGCCTCCCAGCAGACAGACA
TCAAGGATGAGTTAACCAGGAGACTACTCCTGTNACTGTGGAGCTCTGGAAGGCTTGGTG
GGAGTGAATTTGCCACACCTTACAATTGTGGCAGGATCCAGAAGAGCCTGTCTTTTAT
ATCCATTCTTGATGTCATTGGCCTTNNCCACCGATTTCATTACGGTGCCACGCANTCAT
G

Sequence 1046

ACCACGCGTCCGCCCACGCGTCCGGGCGGGGGCATGGACTACTGACCCATGCGGGGCAGC
GTCCCTGTGACCTGGCCGATGAGGAAGTACTGAGCCTGTTGGAGGAACTGGCCCGGAAAC
AGGAGGACCTTCGGAACCAAAAAGAAGCTTCCAGAGCCGGGGCCAGAGCCCCAAGCGCC
CTCTAGCAGCAAACACAGAAGGAGCTCTGTGTGTCTGAGCAGTCGCGAGAAGATTTT
CCTCCAGGACTTGTCCAAGGAGCGCCGGCCTGGTGGGGCTGGGGGGCCCCCATCCAGGA
CGAGGATGAGGGGGAAGAAGGTCCCACCGAACCACCCCTGCAGAACCAGAACCTCAA
TGGCGTCTCCTCCCCGCCGACCCAGCCCTAAGAGTCCCGTGCAGCTTGAAGAGGCCCC
CTTCTCCAGGCGCTTTGGCCTCCTGAAGACAGGGAGTTCTGGTGCCCTGGGTCCCCCTGA
AAGGCGGACAGCGGAGGGAGCCCCCTGGGGCTGGGCTTGCAACGCTCGGCTTTCTTCTCT
GGCTGGAAAGGACCTTCACTTANGCCAAGGAGCTTCGTNTTGGCAGAATTACCCCGACCC
CCTTCCCGAAGCTTGCCGAGCCCTTNTGCTTGTCTGAGGGTCACCAAGCCTTCTTCC
TTTGCTTGGGAGAACTTCTTGNCTTNCCTTCAAGGAATTCNGAGCCTGGATTCCAGCG
AANCCNAACGTTCCACAGGCTTTCACGGGGC

Sequence 1047

TGTCGACCCACGCGTCCGCTCCCCGCCGAGGCCTCCTGCACCACCTAGAGCCCCACCCCC
GACCCACCCCGGGAGGGCAGAGCCAGAAGAAGGCTCATTAGACCTGGGGGACCCAAAGG
GTCTGGCCTCTTTGGGACGCCCCAGAGATGAGGGGTGAGCAGAGGAGAGCTCTGGGGTTG
GGGATGGGTAGGGACGCAAGCTTGAGTTCTAGCCCTTGCTCTCATTAGCTGTTGTGTG
ACCCTGGGTAAGACCCTTCTTGTGTTGACCTCAGCTTCCCATCTGTTAATGGTGGCT
TTGGCCAAGGCAATCCACAAACGTCAAAATTCCCCTTCCCATCAGTACACACACCGATGC
ACACACACTCTCTCTTCTCTCTCTCTCTCTCTCACACACACACACACACACAC
ACACACACACACTAGTTAGTGCTTGGATGAGGCGGGGCAGTGTGTATATGGACCCCT
GGACTTGCTACCTTCAGGGTTCATACTCGTCCCTCCCCTCCTGGCTCTGCTGTCTGGAG
TCTGGCAAGCGGG

Sequence 1048

CGCGTCCGCCACGCGTCCGCCGNCCGCCGCTGCCTGGGCGGGGCCGAGGATGCGGGCG
AGCGCCTCGGCGGCCAGGCTTGTCCCTCCGGCACGCCTGCTAACTTCCCCCGGTACGT
CCCCGTTCCGCCGCCGGGCCGCCCGTCTCCCGCGCCCTACGGTCGGGTCTCCAGGAG
CGCCAGGCGCTGNCGCCGTGTGCNTCCGCCGNTGCCCGCGCGCCCGCGCTNCCCGCCT
GCGCCAGCGCCCCGCGCCCGCGCCAGTCTCGGGCGGTGCTGCTGCCCTCTGCCTCG
TGGCCGACCTGCTGNTGGCCGCCGGGCCCGGGCCGAGCCTGGG

Sequence 1049

NCCACGCGTCCGCAAGGCGCTACGTTTATTGCCTCGTCTTATTCACTGACCTTTGTAATG
ATACACAGTGAATTTCTTTTGACAAAGAGAAATGCAGTGTAGTATGCAGAGCTGCTGTTT
TAATGCCTATGCATTTACTCTTTCCTGATTTAGGCAGAGGTGGCATTCTTTATTGCAT
TTCTCTATTTTTTAATGTACCCTACCTTCAGTATTCTCTTTGTAAGTTGGTGACTTGCA
TCTGTGGCCTTGAATATTTTATTATCATATGTGGCATAACAGTATCCACACTTTTATGTT

TABLE 1
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CTTTATTTTTTTTTTTTTATTTTGTAGCAATTCTCCTGCCTCAGCCTCCCAAATAGCTGGG
ATTACAGGGTGCATGCCACCACACCCAGCTAATT

Sequence 1050

CGCCCCGCGTCCGGGATGGACAAGACAAATCTCTTGTAAAAAAATTACAAGTAATTTTT
ATAGAAGCTCTGCCCTGAGGGAGGGGGAGCGTGACTTCTCACTCCTTCAGTGTGGGCTGC
ACAAGTGACTTCCTTCCATATGGGATCGTTATAACAAAAGACTGTAACAAGGGCTATGGG
AGTTATAAGACAGGAATTGTGGACAAAACAGTGTATATCATAACATCACACCTTGTA
TGTTGGCAGTACAGTCACTGACCTTTGATAAATGTTGATGACATGTTGAGTAAAGGAATG
AGAGAAAGAGGATTGTTTATCTCTGTTTTATCCTTCTCAGAGAACTTAGAGTAACAAG
GTGTGTTATCAGCCATGCTGATGCCTTTGGTAACTATTGTGTGANATNGGGTGGTTTGA
ATTGGTCAAGTAGAACTGGGGCTGCCAGGCGCAGCCGGTAAGCATTTNCATGTGAGCCT
TAGGGAANAAGTGCATTTTGGTAGGAGCCATCAAAAATAGCTTCTTGATATTTCAATAA
AG

Sequence 1051

GACCACGCGTCCGGGGCTCCTGGGTGTGCCGCGGCCTCTGGCGCGCAGCGACTCAGAGA
ACGTCTACGAGGTCTCCAGGACTTGACGTCCGCGCGGGAGGAGAGCGCAGAGCAGG
TGGACGACCCACCGGAGCCCGTGTACGCGAACATAGAGAGGCAGCCCCGGGCCACTTCAC
CGGGCGCGCGTGCAGCCCCCTTCCCAGCCCGGTGTGGGAGACGCACACGGACGCGGGCA
CCGGGCGCCCCCTACTACTACAACCCAGACACGGGAGTTACCACCTGGGAGTCGCCCTTG
AGGCTGCCGAGGGTGCCGTGAGCCAGCCACCTCCCCTGCCTCGGTGGACAGCCACGTGA
GCCTTGAGACCGAGTGGGGCCAGTACTGGGATGAGGAGAGCCGCAGGGTGTCTTCTACA
ACCCGCTGACGGGCGAGACGGCCTGGGAGGACGAGGCCGAGAACGAGCCCGAGGAGGAGT
TGGAGATGCAGCCGGGCCTGAAGCCCTGGCAGCCAGGGGGACCCGNGGNCCC

Sequence 1052

CGGCTTTGCCGCAACATGCTCAATTCCCGATCATCGCTCAAAGTGCTAAATTTTCAGGAG
TGAAAAGAAAAAGGAAGGAAGAAACCCCTCTCAGGCAATCATGTACAGCCACCCGAAA
CAATGAAATGTAATACATTATAAGACAAGTGAAAGAAGAGCATGGCAGACACACAGATG
CAACTGTGAAAGTTCCTTTTCTTAAGAAATGCAAGGAAGCAGGACTTCTTAATTACTTAC
TTGAAGAAATATTAGACAAAAGTTCATTCAATTCAGAAAAACTCATGGATGAGACTACTT
CAGAATCAGACTATGAAGAAATCGGGAGTGCACTTTTTGAAGTGTAGATTGTTGGAAGACA
CATTTGTAAATTTTCAAGCAGCAATAGAGAAAAAATTCATGCATCTCAACAAAGGTGGC
AGCAGTTGAAGGAAGAGATTGAGCTACTTCAGGACTTAAACAAACCTTGTGCTCTTTTC
AAGAAAAATAGGAGATCTTATGTCAAGTTCTACATCAATATCATCCCTGTCTTATTAGGGA
TTACCGTTTCCTAAGCCAAGAGTCATGTCAAATTGCAATCAGGC

Sequence 1053

GACCCCGCGTCCGGGAGGTTGAACGTTCAAGGCTAAGACCGTTACTGAATTGGTTACTAAG
AAGAAGCCAAAGGCTGAAGGCTATGCTGAGGGTGACCTCACTCTCTATCACCGTACCTCA
GTCACTGACTTCCTCCGAGCTGCCAACCTGTTGACTTCCTCTCCAAGGCCAGCGAAATC
ATGGTAGATGATGAAGAGTTGGCACAGCATCCAGCTACCACTGAGGACATACGGGTGTGC
TGTCAGGACATCAGAGTGTTGGGGCGCAAGGAGCTCAGGTCGCTACTAACTGGAGAACA
AACTTCGGCGATATGTGGCCAAGAAGCTGAAAGAACAAGCAAAGGCACTGGACATCAGC
CTCAGCTCTGGAGAGGAAGATGAAGGTGATGAGGAGGACTCAACAGCTGGAACCACAAAG
CAGCCCTCTAAGGAGGAGGAGGAAGAGGAGGAGGAGGAACAACCTGAACCAGACCTTGGCA
GAAATGAAGGCCCAGGANGTGGCGGAATTGAAGAGGA

Sequence 1054

GTCGACCCCGCTCCGCAAGGACCATGTTGTACCACAGCCTCTGCTGAGCTGAGGGACAC
ATGTCTTTGGTGAAGACCTGCACCCCTGGAACCTCCCACCATCATCAAACTGNAGTCTC
ATTTGCAGTGGAGAAAAAGAACCCGACGTCCCACAGCCAGATATACACCCAGCTCCATGCC
AGCCCTTCATGTTTACCTTTTGTGTTAATTACATGTCAGACTCCTAGAGGGCCTCCA
GACTAATAGGAAGCATTTCTGTAACCAACCTGCCACCCACTGATTCAGAAATGGAAATCA
CATTCCACAATCTATGGCTTCCACCAGCTAGCCAGGAAATACTTGAAATCAGCATTCT

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CCACGCGTCCGGGGTGTGGTGCGGCGCTGTTGGGGTCTCCGCTGGCTCATGGCGCCAG
GCGTGGGAGGCCGAGTCCCCAGTGCGAGCACTGCCCGACTCGGCTGGGAGGACTGCCG
GGA CTCCAGAGTCCGCGAGGCGCTGCGGGCGCTGCACGCCGCCAGGGAAAAACAAGAAGA
AGAGTTAATCGACAAACTGGAGGTGGTCACAATGCCTTCCCCATACCAAAAAGGACTGCC

TABLE 1

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AGTGAAGCAATATGCTGTGCAGTCTCAGCTTCCCGTATATGAGTGGCCGGATGTGGGATC
TGGAGAATATGATGTTGGAGTAGTGGCTTCGTTTGGCCGACTTTTGAATGAGGCTCTTAT
TCTTAAATTTCCCTATGGCATATTGAATGTTTCATCCCAGTTGCCTCCCGAGATGGCGTG
GCCCAGCCCCTGTAATCCATACAGNTGCTTCACGGAGACACAGTTACNTGGAGTAACAAT
TTATGCAAATTAGACCTAA

Sequence 1061

GCCGGTTCTTAGGGAGGCAGGTGCTGGCCTGGCCTGGATCTTCCCCATGTTCTGTGCT
GCCTTTTGATACGCCTGATTGTCAACCTTCTGGGCATCTCCCTGACTGTCTCTTACCCC
TCCTTCTCGTTTTCATCATAGTGCCAGCCATTTTGGAGTCTCCTTTGGTATCCGCAAAC
TCTACATGAAAAGTCTGTAAAAATCTTTGCGTGGGCTACCTTGAGAATGGAGCGAGGAG
CCAAGGAGAAGAACCACCAGCTTTACAAGCCCTACACCAACGGAATCATTGCAAAGGATC
CCACTTCACTAGAAGAAGAGATCAAAGAGATTTCGTCGAAGTGGTAGTAGTAAGGCTCTGG
ACAACACTCCAGAGTTCGAGCTCTCTGACATTTTCTACTTTTCCCGGAAAGGAATGGAGA
CCATTATGGATGATGAGGTGACAAAGAGATTCTCAGCAGAAGAACTGGAGTCCTGGAACC
TGCTGAGCAGAACCAATT

Sequence 1062

CCNCGCGTCCGCTTTGAATNCTTATCTTTGATTTAATTTACACGCCAGCATTGTCACG
TTCTAAATAATATTTAGCTCAACTGATTCATACGTATTAATGACCATTCTAGCAAAGGCC
TACAAGTGGTGTGGGAATCAGGGAAAGGCTGCCTCTTTGGTATCTCAACTGGTATTGATT
ATTGCTATCAACTATTTGGGGAGAAAAATCAAATGAAGCCCTGTCAAATTTAGAAGT
ACTATCTTTGGTCCTTCAAACACTTTGTGATGACACCTTAAGAAAAATAAAGTTGAAGTT
CAGGTCTTGCCATTGCCATTACAGACAAATTAGGAGACTTGGTTTACCTGGGAACAAATT
TACTTGAATATTAGTACCTGAAACTATGCCAAACCAAAGAGCAGCTGCAGTACATTCGT
TATTTTAAATGAACAAGGTTTACAAAGNTTATTTTCATCTATACCGTAAGGNTGGATTTT
TTTTNAA

Sequence 1063

GTCACCACGCGTCCGCCNCGCGTCCGGCGTGATGGAGGAACGCTGGGCACGGGGCCCGG
GCGGGTGGGGGGCGCCCGAGGGGCGCGGGCCGAGCGCGCGCGCAGGGCGGCAGCATC
CACTCGGGCCGCATCGCCGCGGTGCACAACGTGCCGCTGAGCGTGCTCATCCGGCCGCTG
CCGTCCGTGTTGGACCCCGCCAAGGTGCAGAGCCTCGTGGACACGATCCGGGAGGACCCA
NACAGCGTGCCCCCATCGATGTCCTCTGGATCAAAGGGGGCCAGGGAGGTGACTACTTC
TACTCCTTTGGGGGCTTGCCACCGTTACGCGGNCTTACCANAAGTGCAGGCGAGAAGACC
ATTCCCCGCCAAA

Sequence 1064

GTGCCACGCGTCCGCCACGCGTCCGCCTGCCCCCTCGCCGCCCGCCGCTGCCTGGGCGCG
GCCGAGGATGCGGCGCAGCAGCCTCGGCGGCCAGGCTTGCTCCCCTCCGGCACGCCTGCT
AACTTCCCCCGCTACGTCCCCGTTTCGCCCCCGGGCCGCCCGCTCTCCCCGCGCCCTCCG
GGTCGGGTCTCCAGGAGCGCCAGGCGCTGCCGCCGTGTGCCCTCCGCCGCTCGCCCGCG
CGCCCGCGCTCCCCGCTGCGCCCAGCGCCCCGCGCCCGCGCCAGTCCTCGGGCGGTCA
TGCTGCCCCCTCTGCCTCGTGGCCGCCCTGCTGCTGGCCGCCGGGCCCCGGGCCGAGCCTGG
GCGACNAAGCCATCCACTGCCCGCCCTGCTCCGAAGAGAAGCTGGCGCGCTGCCGCCCCC
CCGTGGGCTGCAAGGAGCTGGTGCGAGAGCCGGGCTGCGGCTGTTGCGCCACTTGCGCCC
TGGGCTTGGGGA

Sequence 1065

CGCGTCCGAACGGCATCATCACGCCCGCCACCATCCCCAGCCTGGGCCCTGGGGAGTCC
TGCACTCAAACCCTATGGAATACGCCTGGGGGGCCAACGGCCTGGATGCCATCATCACAC
AGCTCCTCAATCAGTTTGAACACAGGCCCCCCACCGGCAGATAAAGAGAAAAATCCAGG
CCCTCCCCACCGTCCCCGTCACTGAGGAGCACGTAGGCTCCGGGCTCGAGTGCCCTGTGT
GCAAGGACGACTACGCGCTGGGTGAGCGTGTGCGGCAGCTGCCCTGCAACCACTGTTCC
ACGACGGCTGCATCGTGCCTGGCTGGAGCAGCACGACAGCTGCCCGCTGTCGCGAAAAA
GCCTNACGGGACAAGAACACGGCCACGAACCCCCCTGGCCTCACTGGGGTGAGCTTCTTC

TABLE 1
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TTCTTGTCGTCATCGTCCTTCTTCAAGCTTGGCCAGCAACGAGAACGCCACAAGGAACT
NGTGAGCCACGTTNGCCGTCGGGAAAACACGGGNN

Sequence 1066

CGCGTCCGGCCTCCAGCACATCCTGCCTGCAGAGGGTCTGGCTAGCTGCCTTTTCAGCTC
TCGAGGGATAGAGATTCTACAACCTCCCTCTGTCTCATCAGTTCCAGAGCCACTCCCCTTG
CACTAGAAGTTCTTGCTTTCAAAGAATGAGGGTGTGAGGGAGGGAGGGGTCAAGAAACAG
AGTGACAGGGGAAACAGGCAGAACAAGTCAGGGCAAAGGACCCAGCATGAATAGTTGTG
GAGGTGGAGGTGGGGAAGCAGCCTCACATCTCACACTTCCTTCCTTCTCTTAAATGTGAG
CAGCTGACTCCAAGCCTTGTGGAAACTCTAGAAGGTAGAACCAGCCATCTGGGGAAGCTG
GCCTTACAGATGCCCCGTCTGGCATAGTGGGAGGTTCTGTGCTCTGAGAACCCAGTGT
GAATCTAGACATTCCACTGCAGCCTGGGAAGAAGCCTGTGTTTTCTTTAAAAAGTCT

Sequence 1067

GCGTCCGGTTCTTAGGGAGGCAGGTGCTGGCCTGGCCTGGATCTTCCACCATGTTCTGT
TGCTGCCTTTTGATAGCCTGATTGTCAACCTTCTGGGCATCTCCCTGACTGTCCTCTTCA
CCCTCCTTCTCGTTTTCATCATAGTGCCAGCCATTTTTGGAGTCTCCTTGGTATCCGCA
AACTCTACATGAAAAGTCTGTTAAAAATCTTTCGCTGGGCTACCTTGAGAATGGAGCGAG
GAGCCAAGGAGAAGAACCACCAGCTTTACAAGCCCTACACCAACGGAATCATTGCAAAGG
ATCCCACTTCACTAGAAGANGAGATCAAAGAGATTNGTCGAAGGGGNCNNAGTAAGGCTC
TGGACAACACTCCAGAGTTCGAGCTCTCTGACATTTTCTACTTTTGCCGGAAAGGAATGG
A

Sequence 1068

TCGACCCCGCGTCCGGCTGGTTTTCCGTCTGGTGAGGGGTTACTTCCGGGTCCGACGGCG
CTAGCTGCAGCATCGGAGTGTGGCAGTGCTGGGCTGGCCGGCGGGCTGGGCTGCGGCCCG
CGCGCGGCCCGGCATGCANGGGGGCAACTCCGGGGTCCGCAAGCGCGAAGAGGAGGGCGA
CCGGGGCTGGGGCTGTGGCTGCGCCGCCGGCCATCGACTTTCCCGCCGAGGGCCCGGACC
CCGAATATGACGAATCTGATGTTCCAGCAGAAATCCAGGTGTTAAAGAACCCCTACAAC
AAGCCAACCTTCCCTTTTGAAGTTTGCAACCAACTCTTGCTGGGTTTCTTTGCTGGAA
GCACNTTGAGCCCACTGTGCATGAACCA

Sequence 1069

CCGTCCGGGAGGTTGAAGTTCAGGCTAAGACCGTTACTGAATTGGTTACTAAGAAGAAGC
CAAAGGCTGAAGGCTATGCTGAGGGTGACCTCACTCTCTATACCGTACCTCAGTCACTG
ACTTCTCCGAGCTGCCAACCTGTTGACTTCTCTCCAAGGCCAGCGAAATCATGGTAG
ATGATGAAGAGTTGGCACAGCATCCAGCTACCACTGAGGACATACGGGTGTGCTGTCAGG
ACATCAGAGTGTGGGGCGCAAGGAGCTCAGGTGCTACTAACTGGAGAACAAAACCTTC
GGCGATATGTGGCCAAGAAGCTGAAAGAACAAGCAAAGGCACTGGACATCAGCCTCAGCT
CTGGAGAGGAAGATGAAGGTGATGAGGAGGACTCAACAGCTGGAACCACAAAGCAGCCCT
CTAAGGAGGAGGAGGGAAGAGGAGGAGGAGGAACAACCTGAACCAGACCTTGGCAGAAAT
GAAGGCCCAGGAGGTGGCGGAATTGAAGAGGAAAGAAAAAGAAG

Sequence 1070

GCGTCCGGTGCTGGAGGAAATGTTTCTGGGGAAGATGACTCAGTCATTTTGTGGCGAGA
CACCCTTTGGTAACTCCCACTGACCAGTCTTGGGAGCCTTCTGGAATGATCGTGGGCTG
AGCGGAGATGTTTTTGC AAAATGAACTGAAGCTGAAAGAAAGGAGAATTCGAGTGAAC
CAAGAGAAATCCAAAGACCTGGGGAAGGAGGACTTAAGATGAAAGTGAAGCAAGAGAGGG
AAGGGGAAATGAAGTGA AAATGGCGTGAGGGTGTGAGAGAGGTTTGGGTTAGGAAACATG
TTTTTAGTGCTATTTNCAACCAGGG

Sequence 1071

CACGCGTCCGGGACTGATCTCNAGGACCAGCACTCTTCTCCCAGCCCTTAGGGTCCTGCT
CGGCCAAGGCCTTCCCTGCCATGCGACCTGTCAAGTGTCTGGCAGTGGAGCCCCTGGGGGC
TGCTGCTGTGCCTGCTGTGCAGTTCGTGCTTGGGGTCTCCGTCCCCTTCCACGGGCCCTG
AGAAGAAGGCCGGGAGCCAGGGGCTTCGGTTCCGGCTGGCTGGCTTCCAGGAAGCCCTA
CGAGGGCCGCGTGAGATACAGCGAGCTGGTGAATGGGGCACCATCTGCGATGATGACTT

TABLE 1

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CACGCTGCAGGCTGCCCCACATCCTCTGCCGGGAGCTGGGCTTCACAGAGGCCACAGGCTG
GACCCACAGTGCCAAATATGGCCCTGGAACAGGCCGCATCTGGCTGGACAACCTTGAGCTG
CAGTGGGACCGAGCAGAGTGTGACTGAATGTGCCTCCCGGGG

Sequence 1072

CCCGCGTCCGCGCGACGGCCGCGCGGGACCTTAGGACCCGCGGGCTCCAGGGCTACT
GTCCGTCCGCCACTGCGCGCCAGCAGGTCTGGTCTCCGCTCTCCAACAGCTGAAAGGCC
GGCGCAGTGAACACAGAAACGAAAACCAAGAAATGCCTTATCCACAAACAAAGAGTTGA
TACTTGGCATCATGGTGGGCACTGCTGGAATCAGCTTGCTGCTCTTGTGGTACCACAAGG
TCCGTAACCCAGGGATAGCAATGAAGTTACCTGAATTTCTTCTCTGGGTAATACATTTA
ATTCAATAACTTTGCAAGATGAAATACATGATGACCAAGGAACAACAGTAATCTTTCAAG
AAAGGCAACTTCAGATACTGGAGAAGTTAAACGAATTCTGACAAATATGGAAGAACTCAA
AGAGGAAATCAGATTTCTTAAGAAGCTATTCAAAGCTGGAGGAATATTTACAAGGATG
AACTTGGGAGG

Sequence 1073

CGCGTCCGCTGAGTTCNAGGATGGTTTTTCTTGGGACCAGACATGAACAAAAGTTGACC
TCATGAGCACTTCAACCTCTCCAGCTGCCATGCTCCTCCGGAGGCTGCGGCGACTCTCCT
GGGGCAGCACTGCTGTCCAGCTCTTCATCCTAACAGTGGTGACAGTTTGGCCTGCTGGCC
CCCCTGGCCTGTCAACGACTTCTACACTCTTACTTCTATCTGCGCCATTGGCATCTGAAC
CAATGAGCCAAGAGTTCTGACGCAAAGCTTGAAAGAGGGTGAGGCTGCCCTCCACTAT
TTTGAGGAGCTTCCCTCTGCCAATGGCTCAGTGCCCATTTGTCTGGCAGGCCACCCCCCGG
CCCTGGCTGGTGATCACCATCATCACTGTGGACAGGCAGCCTG

Sequence 1074

CGTCCGTGAAAATCCAAAGATGTATCATTTTTATTTGAATCCATCATGCAGTGTACATTT
CAGATAATTTCCCTTCAGTCTCCAGATAGGAGTGTATCCAAACATCTAATTTTATGTGCAC
TGTGTATCTTATATGAATGTTTTATTTTATATACCACATGCAAAAATGNCCATATGCACT
ATTTAAATGTTTTAAATAATATATTCCTTCTTTATAATGCTAAATCTATATGAGTACCAT
ATTTTTATAAGTCAGTGGTCTGACNCGGNTTCATTTTTNAANTAACNNNNNGCTTCAAAATG
GGTATTCAANGNGAAAAGGGTGGNTGTGAGGAGAANATGTGAAAGNNGGNTGGGNGNNT
CTTTTGCTTTGGGCCAGGAATTNNGGGGGGCNAAAATNNACCCANAACCTGGNNNAAAAN
TAGGNCCANTTGGGGGNGANAGGTTTCACTTTGGGGCNAAAAANAAAAANCCCGGGGTTT
TTTNTNTTNNCCAAATANATTNTTTTTGGGATTTTTTTTTGTNCCCCCCCCGNATTAA
TGGGGANTTGGCTGGNGTCTTGGCNCCTNTCATTTGTGCCAGACCTTTTTTTTATTA
AAGAACCTTGGGAAAGGTCTTAAGTNCATTTGGGAAAAAAAAAAAAAAAAAAAA

Sequence 1075

GAGCCGNCCACGCGTCCNCGGNCGCGTGGGCTACCTTGGAAGCAGTCATCTCTCAGTCT
TACATTTGGAGAATGTGGATGGCATGACATCAGAATTCCTTTATATAATTTAACTTCAGA
ATAGTCTGAGATCATCGAAGCACGATGGTCAAGGGAATTCGTTTTTGTGTTAGAGCAAA
TATGTTTGCTGTTTGTCTTTATCACAACATCAGTGGAGTTTCAGCACCTTACAGAGCT
CAGTGAACCCCTGGTCACCATCAAAGTTAGCACACAACAAAGCCAACCACGTGTCCCCC
TCACAGATGACAATGGCTGAACTCTGAGTGAAACCACCTGTATGGCCGGGCACAGTGGCT
CA

Sequence 1076

GCCCCGCGTCCGCTTTTTGAGAATCTCTGCTCTGTTCTAGGTTCAAGTCTGGGTCCTGG
GAATACAGCAGGACAGACCTCAGCTTATCTCTTCATAGAAATTATACAAAGAGAATTGGG
GAGACAGCTAAGAAGAAAACAAAGAAATAAAGCAGTTACAAATTGTGATAAAGTGCTTTT
GAAGGAAAGGAAGGGTCTGAGACAACAACAGGGAAGGGGCCTCTCTTGAAACAGTAGTTG
GGAAGGAGGCAGACATGCACAGTGATGTGGTGACAGGTGCTCTGAAGGAGGTCAACAGG
ACCTGACCTCTTTGAAGGATCAGAAAATACTTCCCTGAAGGACTGACATTTGAGCCTAGA
CCTGAAGGGTGAGCCATCAAGCTAAGACAATTGGGGAAGAGCATTCCANGGAGAGGGAG

Sequence 1077

CGCGTCCGATCTTTGTCTGCTTTCCTATAACTCAGTACTGTAACCTCAGTACTCTGAAATA

TABLE 1

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GTTTCCTTTGTTAATAGAGTCACTTTTATAGTACTGNGCTTGAGGNNATATACAGAGTAT
TGTGTCCAAATTTATCATTGCACAAAGTGTTTTGGAAATCTTGTTACTCCTTAGTAA
ATTACCTGTAATTGGGTTAAATGCTGGTAGGGTTTAAATCTGATTGCTAAAGTGAATTCT
TCTATAAAGTGAGTTTTGATACATAGAACTTTNCATATAATTCTTAACTCATGTGTCA
TGTATTTTCATTTATAGTTTTTCATATTCATTAACATATGTTGTTCCCTTACCATTTCACAG
CTCANAATTCTGCANATGCAGATTTTTGCAAACCTTGATGCATTTGGACAGTCTAGTGGT
TCGAGTAATTTGGAGGTTT

Sequence 1078

TNCGGGCGGCTGCGGCGGGCGGGCAGGCGGGCAGGCCGCGCAGGCGGGTGCGCGGAGGGCT
GGTACCCCTNAGCAGGTGGGCGGGGTGCGGTTGGNGGCGGCGGCTGGGCCGGGGGCTGCC
CGGCTGCGCTCGGGCCGTGCGCGGNGGCCGTGCGGGCAGCCATGGACTTCAACATGAAG
AAGCTGGCCGTGCGACNGCGGGCATCTNTNTTACCCGGGCCGGTGCCANTTCACGGAGGA
GAAATTTGGCCAGGCTGAGAAGACTTGAGCTTGATGCCCACTTTGAAAACCCTTCTGGCC
CGGGCAGACAGCACCAAGAAGTGGACAAGAAGAAGATCTTGAGGCAAGACAAGAGGTGCC
TGCTGCAGCCCCAACCCAGTGCCCCGAGTGGAGGGAATTANCTGTATGAAGAAGCTTG

Sequence 1079

CACGCGTCCGTGCTGAGCGGTCCCGAGGGGAGGGGCCTGAGGCCGAGTTCAGTCGCTGA
CCCCTAGCCAGATCAAGTCCATGGAGAAGGGGGAAAAGGTCTTGCTCCCTGCTACCGGC
AGGAACCTGCCCCGAAGGACAGGGAGGCCAAGGTGGAAGGCCAGCACCCCTCCGTCAGG
AGCAGCGTCCCTCTTCCCAACGTGAGCACCGAACGTGAGAGACCCAGCCTGTCCAGGCCT
TCAGCAGTGCAGTGCACGAGGCTGCCCCCTCCAGCTCGAGGGGAAGCTGCCATCTCCTG
ATGTCAGGCAGGACGATGGGGAAGACACCCTGTTCTCGGAACCCAAGTTTGCACAGGTCA
AGCTCAAGTAATGTCGTCTTGAAGACGGGATTTGATTTTCTGGACAATTGGTAAATGTA
TTAGAAAAATACAATGAAAGAACCCCTAAAATGTTTTCCAAAATGGTGTGGTGGAGGAGGA
TAAAAAAGGGCCACCTTTTCTATGTATTTTACTGGTTTCTTGACACTCTTTTCTTAATC
ATTTGGAACTGGTCAATACTGNCAGATTTTTT

Sequence 1080

GTAAGCCAGGTGCTCCCCCTTCACTTCTGTGTGCGGAGCACGCTCGCCCTGGGAGTTTC
ACTAGAAAGAAGGTTGCCATGGGCCAGTGGGACAGCTTGATCTCAAGTGCACGCGGATG
CCCCAGAATCCAGGATCTCAGCTGAGCTGTTTGTGGATTATTAGATCTGACTTAAAGA
ATATTATCCAGCAATGCAAATGAACAACTATACTACACACAGCTGCATGGATAAATGT
CAGAAACATGACGTTGAAGTGTGAGAAGCCAGATGCAAACCGAGGACTCACTGTGCAATT
CTGTGCATGTACAGTGGCCAGGAGAAGGGAGCACTGGCTTTTGCTTTCATCAGGCCAAAG
ATGCCCTTTCTTTGGGAATACGTTCAAGTCCCAAGAAAGACACCTCCTCGGAAGGTGGCA
TCTTTCTCCAACCTGCATTCTTTGGATCGATCAACCCGGGAGGTGGAGCTGGGCTTTGAA
TACCGATCCCCCGACTATGAACCTGGCAGGGCAAAAGCCTGAAAGTTTGAAAAAT

Sequence 1081

TGCTCTCTCACCTGTTAGCTGTGTAGCATTGGGCAGGTTACTTAACCTGTCTGTGCTTCA
TCTGTGAAACAGGAATAACAGCATTATTAAGGATTGTTTTAGGATTGGATGGGTAAATAG
ATGTAAAGTCTTAGAACTATATTGAGCATCCCATCAAGGCATTGTATTATATTGAAACAA
TGGGGTTTTNTTCTCTTTATNCTTTTTTAACTATATAATGAACACTTTTGATCTTAAGT
ATTNCTAA

Sequence 1082

CCCGCGTCCGGTGAATGTTAGTATTGGGTGTGGGATGCATCAGGGACACAGGTTTGTA
CCATGACAATTCAATTGTAACCTAAAGCCNAGTGCCCCCTGTAGTCCCAACTGCTGGGG
AGGGTCACTTGANCCCTAGGGGGGGGAAAATGCAGTGGACTGGATTTTGNGCCCTTGCAC
TNCAAACCTGGGTGACATAGTGAGGCCCTGTCTTCTACCANAAAAAANANNANNN
NNANGGTGCCGGGCCGCTTAGAACTAGGTCTTAGAAGAAAAAACCCCTCCACAACTTC
CCCCTGAACCTGGAAAACATNAAAATGGAATGCCAATTNGTTTGGTTGTTAACCTTTG
GTTTTATTGCAAGCTTTATAAATNGGGTTTACCAAAATTAAGGCCAATTANGCCATT
ACCAAAAAATTTTCAAAAAATAAAGGCCATTTTTTTTTTACCTGGCATTCTTAGTTT

TABLE 1

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NNTGGGNTTTTGGTCCCAAAACCTCATCNAATGGGTANTCTTAATCATGTCCTNNGGGATC
CCCCCGGGTTACCCGGAGCCTTCGGAAATTAATTTCTTCTTTCCGCTTTTCTTCGC
TTCATTGACCTCCGCTTNGNCTCGGGGTCCGTTTCCGGGCTTG

Sequence 1083

TCGACCNCGCGTCCGTGGAGGGCCCATCTGCCAGAGCCTGGAGTCTGCGAAGGCCGGGAC
CCGGTTCCCCGGCCACAGTGGGGGTGTGCAACCCGAGAGAACTGGGAAGTGCCGTCAG
AAGCGATAACTGACGACGTCTAATGTCTATCTGACCGCAGTCGCTGAAACCTCTACAACT
TAGTTGACCGTAACTGCCAGAGCCCTGCCCTGAATTCCTGTCTTACTCCCTCTTTAAGA
TTGCGTACCCACTGCAGAGTGCTGAAGACGGGGTAGCCACCGAGGTTGCAAATTCGTGAA
GAATCAGCATCATGTTTGGCAGCTGAGTATTGGAGCCAGGAGCCTGCCATGAGGTTTTGA
GAACAGAGTGCTGTTTTAGAGCTGGCAGCAGCATCTCAGCCCAAGAGAAGGTTATATTCC
CAGAGGATGTCAGTCCCAAGGACCAAGTAGCTGCCATCAGTTTGGATTCTGAAAACTAAC
TGGCATCAAACCTGGGTGTAGAAACATG

Sequence 1084

CGCGTCCGACTGTCGCTCTAAAGAATGAAGGAAATAATAAAGTGATAGACAGGGAAGG
ATAGAAAAGACTTAACAATATACATATGTTCCGTCTTTGCTGTTTTGGAGAATGATGGAT
AAGTANGTGTTTCTGATTCTGAAGCATAGCTGAACAATTTAATTGTGGTTTACCATCTT
TTTGGTTCCCTCTTCAGTAATTAACCTATCGAAAATCTGTCCTAAATGTTTGGACTGGGG
CACAGTTCCTCCATCGCTTTGGGAGAAAATCATTAAATATGGCATACTGCAGATTGGAGG
GCAGGACCACTGAGGGTGTGCATAGACATTAGCTCTATGGAATTCTGCTAGCAATTTCCAA
GTGACAGTGAGGAATTATGGATATATGTTTGAAGTCAATCAAGCTTCCTGAGTACCACAT
TCCCCAGCTACTTAGACACCGGGTTAAATATTAAGATGTCCTAGTTCAACAGCTTGAA
TTCCATTGATTGGAT

Sequence 1085

GACCCCGCGTCCGGCTTCTGGGTTCGAAAGAACCCAGTTCAGGAGTTTCTGTTTTAGTT
TGAGATCTTATAGCCTGTCTCATCAGGTTGGTGTGAGCCAGCTAGGATTAGGCAGAAT
TGGGTGGGGCTGTAGTGCATCTTGGCAGCATGTACCTGTCTGACTAATCTCTGTC
TTTTCTTCTGTTGCAATTCATGGGTCTTAGCATCTTCTGAATGGTGTTTAGTAGGTCA
TCCTGTTGATTTCTGCTAGGGAGTAGCATACTCTGGCTCTGTACCATTGGCCAAGGGAC
TTAAGGATAGGTGAAGGGCTGCAGTTTTGTTAAATGGAACAATATGAAGAGATGGCATTG
TAAAAAACTTNTGNCAACTNAA

Sequence 1086

TGTCGCCCCGCGTCCGATCAAATCTTGATGAAGGATTGTAGATTTTTGCTTTTTCTTTT
GTTTTTAAACTTATTCCAATTGCTAAATTGGTAGTTTTTCAGTCTTTATAAATACAGGA
TTAAAAATATATACAGTTATATGAAATGTTTATTTTCTATGTGTGTGCATATAGTTCA
ATATTATGCAATAAATTTGGTGTTTTAACTTAAACTATTTCTTATTGACTTGCAGAAT
GGATAGCTTGCTTTTAGTAGAAGCATTAGGTCGTATACTCAGATAATCTAATAGAAGGTC
AGATTTGATTCTGCATAAGAAAGTAGAGCCCAAGTGCTGCAGAAATGGAGAAGAAAGCA
GGGGCAAGGGAGCAGATGGCATTAAAGGAAGAAATGAAGTTTTTGAAGGTTGGGGATGGACG
AAAAGGTGTTTCTCATGGAGAGGGGATGCTTTAGCAAAGGCTCAAACATTGGGGCATAT
TTAGGCAAGAGCCAAGAAACAGTTTGAAGGGGAACATCAGAGGAAATAGGCCAAATTAAT
AGTAAATN

Sequence 1087

GGNGTCGACCNCGCGTCCGGAATACTCAAATAATGCAACATTACTTCCCAGAAATGAAA
ATACATTGCATCTCTTATTGAAAGAGCCAACAGAGGCAATGAAAAATAAATGTACACATA
TGTGCACCCTTAATTTCTTATAATGAACCTTGAGAAATCAAGGCTTTAGAAAAATGCTGA
GAGACAAGAGCCTTCTGAGCAGCAACACTGGATGCAGGAAAAAAAATGGAGTAATAAGTG
TAAAGTTCTGAGGGGAAAAAATATCAGAACCTAGAATTCTAAATTTAACCAAACCTGTC
ATTAAGTAAATGAGAAAAAGTAAATTTCTTTGAGAAACGCAGAGCCTAGAAAGGATTACT
AATCGGTAGGATCATCTTTTTTTGTTTGTGTTTGGNTTGGGGACAGACTCTCACCTCT
GTCACCCAGGCCTAGGTTTGCAAGTGAGCCAGGATTGTGCCACTGCCCTCCAGCCTTGG

TABLE 1
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GGGTGACAGGAGCAAGGACTTCATCTCAAAAAAAAAAAAA

Sequence 1088

TCCCCCTGCCCCCAAGCTGAGGGAATAAACTCTGCCTGTCGGGTGCCCCACCAAGGGA
AATAAACATGGCCTAGCTGCCAAGTCATGCCTGTAGGGTGCTCTCTACTGGCAGTTTCTG
GGTGGTGATACATCTAGTCTCCCTAGAAGAGCACAGTCCAGAATTGAGGAGGTACAGCA
GAAACAGACTGCAGGCAGAGAGAGGTCTCATAGAGCTTGGACAGGGCTAGGCACAGAAAAG
AACAGGCAGCGTATCCAGAAGGGGGCAGGGAATGGGTGAAGAGGTTGTGCTCTAGGGCAG
AGCTGAGCTCTGATCTAGAAAGGACAGCAAAGATACCTGGAAGGCCTCCCGATTCTTGCG
TTGTTGGCGTCGCTCCCGAAGCCGGG

Sequence 1089

CGNTCCTTGGGTAAAAGCGTCCCAGAGACGGGAAGAAATATGGTATAAGCGAGAAGGCCT
CATAAATCTGGGCTGTTAAAAATCTAAGTTAAAAATATGTTTTAAGTCAGAAAAAAAAAAAA
AAAAAAAAAAAA

Sequence 1090

CGCGCCTGGTAAAATTATATAAGCTTAAAAAACAAAAACAAAAACACTTGCTTTGAAAA
GAGTCTCTCAGCAGCAATTTTGTCTTGCCCTACTTCCACAGTTCCTTTTCTTACCATT
TCACATCTGGATTACTACATTGGCCTCTTTGCTTAGACTCCCAATATTCATTTGCTTTCC
TTCACCCCATTTTATGGAGGACTGTCAGATCAATCTTTTAAAGATAAATTTTATAATGTT
ACTACTGTTGCCTATTGGATTAGAGCCCTAGGGGTGCTTTTTGTAGTCTCACTGACAGCT
GACATTAGTGATTTTTACCCCTCTTCTATTGCTACCCTGTGTTGATGGCCAGTTTCCAG
GTGGGCACCTGCTCCACTTGCTTTCAT

Sequence 1091

GGGGTATGTGTGGTTCTTCCAGGAAAGTGCTGAAAATATCACCCAGGCCTCTGCGCCACG
CCCTGGGAGAGTACACTCCTGGGCTCACGCCTCTGCATTCCAAGGCTGACAGCTAGAAAT
ATACTTTGTAAAATACCAACAACCTATTCCAAATATTCCTCACTATCTACCAGCTCCAAT
GAGCTTGCTGAGGATGGGTATGACCCAGTCTAAGGGGAAAGAATCTAAAACACAAGTAA
ACCTGTTTAAAGGCCAGATCTCCAGATGGAGATCCAAGCAGATGGCGCCTAAGGTTTGCC
CTTGAAAACTACCAAGGAAGCCACAGAGAGGGATCTTTGGACCTTCTGGAAAATGGTAAG
GCCCCAGGTAGATTATGGCTCCTCTGCCCTGGAGGCTGAGCCGCCCTCTGGTTACCTCAC
ATCTTCTGTTTCTTCTGAGTGGGACTTGATCTCATTCTGCATTACAGCAAGGNGGAA
CTGTCTGGCAAGAGCTTAAATAGGACCTGNTGGTGGGGACCTTTAATAGCAGGTGGAG
GGTTTGAGATCCCNAGATGCCNAGATTAATTCAATAGGGGGGANGAAAGATTTGCCCC
AATTCAAAAGNGCTTAAAAAAAAATTTT

Sequence 1092

CGCGTCCGGTTCTTTGGTTGAGCTTCTTTGTATCAGTAACAAAAGGAAGCATCATTCACT
CTTTCTTTGTAACCTAATGTAAGTCTCTTTGTACATCCTATTACTTCAAATCATTGAAG
TGAATCCATTTTACATCTGTTGGGAACAATCATCTAGCTTCTTAAATGACTCATCTTA
AAATATGAATTTTAGACTGCCTAAACATTCTGAGGGAGTACAGTGTGATATAGCAGAAAC
AACCGGGGCTTAAGAAGGATCAAAATGAAAGGTTTTGTGAAGGATGTGCCAGAGACTGCT
CTCTGTTACACAAAACCACATTCTTCTCTTCTTCTGCGATAGAGCCAGACTAGATTTCC
AAGCTTTCCTTGCAATTGAGCTCTCAGAGTTCTCGTCATTAGAATGTGAATGATAGGCCG
GGCGCAGTGGCTCATGCCTGAGATCCCAACACTTTNAGAGGCCAAGGTGGGTGGATCACT
TGAGGTCCAGAGTTNAGACCAGTCTGGCCAACGTGGTGAA

Sequence 1093

CGCCCCGCGTCCGATAAACTGGATTTGATTTCTTTTTATGAAANGTTTCATATGAATGT
AACTTGATTTTTTACTATTATAATCTAGATAATATGATATAAGAGGGCTAAGAATTTTTA
AATTGAATCATATATGATATAATTTGATCCTTCTTGATCTTGAAGTTTTGTACTTGG
GATTTCTGGACTGATAAATGAATCATCACATTCTTCTGGTAAATATTTTCTTGGAGCTCT
GTGTCAACTTTGATCCTTTGTCTCCAGGAAGGTGTGACCTCTCCTTTGCCTGCATACCT
CAAGGCCAGGGGAATATGCCTCAGTGATGCATTTATCTTTGTATATCAGGCCGCATGATT
CCCAACTTTCTGCCACACTTAAATTACGTTCTCCATTTCAGTTTTGTCTTTTCTGTCTA

TABLE 1

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AAGTTCAGTCAAAGAGTATCAAAAAATTATGTTTCAGCTAGACTGGTGTAAATGTATAAGT
TTTTGTATCTTGATTAGAGGATTTCGTAGCTTTTATTAGAGG

Sequence 1094

GCCCCGCGTCCGATCCCTAGATGACATAACAGCCTTACAAAAGGACAGGGAGGAGTGTCT
GTTCCCTACTCTCACATAGCGGAGGAAAGTTAGAGCCTCTCAGTCTCTGTTTATGAGGACT
CATTAATCTCAAATAATTGATGCATTTTTCATACATTAGGGTCTCTGTCCATGTGTCTTC
CTGATATTGTTATAGAAATGGCTTCAGGCTGCTGGTAACAGATGCTGCGGAAAAAGAATG
CCTTAAACAAAGCCAGGCGCGGTGACTCACGCCTGTGATCCCAGCACTTTGGGAGGCTGG
GGTGGGAAGGATCACTTGAGCCTAGGAGTTAGACACCTACCCAGCCTGGGCAACACGGTG
AGACCTCGTCTCTACAAGAAACAAATAATTGGCTAGATGTCGTGGCGCACAAAGCTTGTGG
TCTCGGCTACTTAGGGGGCTGAGGCGGGAGGATTATTTGAGCCTGGGAGGTCAAACTG
CGGTGGGCTGGGATTGCGCTACTGCACTCCGGGCTGGGAGACCGAGTANGACCCTGCCTT
AAAAAAAAAAAAAAAAAAAA

Sequence 1095

AGTCGCCCCGCGTCCGCTCATACCCAGTGAATCTTCAACAGAATCTCTTAAAGATCTCCA
GGAAGTATAAGCTCTCATTAAATGTTTGAGTTAGAAGAACTTATTCTGGGCCTTTAATTTG
TTGCATGTGCTGTACTTAAAGCATCCCAGATAATTTTAGCTTATATTTTCATAGTGTTA
TACAGAGCTTGAATTGGAATGGTCCTTTCTTCCTTGCCTCAGTACTTCTTCCATAATC
TTTCCTGCCATAACCATTATTTTCCACCATTCTTAAACACTTATGTGGCAGGCATTA
TGCTAGACTGTAATATGTTTTTTTAAATCCAGTTGAAGTGGATGTGGGAAGGTATTAGA
AAGTAGAAGAAAGTATAGTCTAAATAGAGAGGAAAGAAAGGAAGAGAAAAGTGGGATAT
TTCAAAACCATTTGCGCAGAGGTAGAATGAAATTCGCCAGAATGGGAATCTCCGTATTTT
TTTACAAT

Sequence 1096

GTNGCCCCGCGTCCGAGTNAACAGTGGTAGTNAAATTCAAGGTTGGTAAGTTTTTCCATA
GAAGGCCAGATGGTAAATATTGTAGGCTTGACAGACCATGTGGGCTCCACGACTCAACTCT
GCCACAGTAGTTTGAAAGCAGCCACAAACAGCCTTGGTGTGACTTTGTTCCAGTAAACTT
TCTTTATAGAATGGGAGAAAATATTTGCAAACAATGCATTCAACAATGGCCTGATGTCCA
GAATTCATGAGGAACCTTAAAAAAGTCAACAACAAAAATCACCAATAACATTTAAAAAGT
GGCAAAAGATATGAATAGTCATTTTTCAAAAGAAGACATACCGAATGGCCAACAAGCATA
TGAAAAAATACTCAACATCTCTAGGCTTTCAGAGGCATGCNAANTAAACCNCCTTNGA
TATTATNTTACNNGANCCCNAATGGGTTTTTTTTTAAAGGCCAAA

Sequence 1097

CCCCNCGCGTCCGTTNAGTGTGCTTTGGAAAAGGGAAAAAGTCTAAGTAGATATAAAA
CCCTAACTAAGGAAGAAAGCAGGTAGCAGTGGTGGTCCAAGAGACCGTGTAGTGGATGCA
AGGACCGCTCGTATTTTACACGCTATATTTTACGAAAGGGTGGCCCATCTGGCAGGAAGA
TGGGGACATATGTCACATATAGAGCAGTTAAGGAACTAGGGAAAGTGAAGACTCAGAAG
ACCTGTCTTTGACCTGGTATGTTCTATCTCTACAGAACCTAATATGGCTTATACATACTG
CCACAGAAAGGACTGAGGTAGACAGTGGCAAAGACTTCCTAGGAGTTGAACCCCTGAAAT
TACATAAGGAGTAGGACCCACCAGAATTCTGTCTTTGTAGGCTGCTGACTGCAGAAGAA
ACGGTGTAGCGGAGGCAGGGGGAAGAGGAGTCAGNANAGTACACTGGGAAGGAAGAAACG
GGTCTTTTCTCTT

Sequence 1098

TCGCCCCCTGGGCCCTCCTAACCAACCAGGGGAGGGGAGAAGGACCCAATTCTTTTCTTT
GGTGACGTAGCCTGGACCCGTTATGGACAGAGGCCAAAGGAAGATAACAGTGTGGTGTC
CAGAGATGAAACCAAGTGGTTGATGGGCAGTTCTTTGAGCAACCTTGTTTATGAGCCTAT
TGATATGCAGATATAGAGGCATCCAATACTATTGACTAATTTAAATCTTATTCAGTGAG
TCAACACTCTAAATAAGCAATGGAGATGGTTCCATTCATTTTTTGCAAGTATCATTTTT
ATAAACATAAATTTCTGAGATTTTTGTTTCATCTTAGCCTCTGTGGAGCTGCTTCGTG
GTTATGATAAGTGCTGTGTGATGCTCACCTTGGGAGGTCTGCGACATATATTGAAGTCAT
CTCTAACCTGAAGTACTGACAGACTTTCTGGAAGAAAAGGCTTGTAGGAGGAACTTCAG

TABLE 1
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AATTCTATTAATGGTGTAATGATGAAATTATAGTTGATATATGCTAGAGCATCAGTGC
TGGGTATTTTAGAAGGGATGGA

Sequence 1099

CGGGCCTGTTCCCTAGAGCCTCATTGGAGACATTGACAATGCCATGAGGACCTTCCTCAAC
TACTACACTGTATGGAAGCAGTTTGGGGGGCTCCCGGAATTCACAACATTCCTCAGGGA
TACACAGTGGAGAAGCGAGAGGGCTACCCACTTCGGCCAGAACTTATTGAAAGCGCAATG
TACCTCTACCGTGCCACGGGGGATCCACCCCTCCTAGAACTCGGAAGAGATGCTGTGGAA
TCCATTGAAAAATCAGCAAGGTGGAGTGCGGATTTGCAACAAAAGATCGCTTTGGCTGC
TTTGTGAAGAATAGATTGAAAGGGTCAAAGGTGAGAGCCATCTCACATCCATGCAGGAAC
CAAGCAGGCAAGATATAAATATGAAAGTAGAAGAAAATAGTCTGGAAGAAAATCCC

Sequence 1100

CGCGTCCGGGAGTGACCCCCAAGATCTAACAGCTGTTTCAGAGCTGCTCATTTTAGAGTG
ATTGGTAGGGAGTTGGTGGCTCAGAGGTCTAATCAGAATGTGCTCCTGGGTTCTGAATGA
CTAGCAGACTATCATTAAACCAATAAATTATGGGATTTTGTCTTAATTATACATATAC
ATATACACACATACACATACACATACATGTGTATATATCCCTAAAACCTAATAAAGC
TCAAATAATAAAATCAGATTTCTTAAGTATTCCAATTCCTTTAAAATGTAAATCAGATT
TTATAATTCTTTGTTCAAACTGTCCATTGGCTCCCATTTCACCTAAATCAAAGCTAG
TTTTTACAATAAGCTAAGATAGCAAACATTATTATCTATTTACTTATGAGTTACTTATGT
AACTCAAGCATCCAATAACACTGTAGGGTGCTCAATAAAAATAGTTGCTGAATGGATAACT
TTC

Sequence 1101

TGTTTTACGACAGAGCTTAGTGCAGCCNGTTCTTGATGGCTGTGCAATGCTTTCTTTTA
AGAGTGGAGTTAGCCTCGTCATAAAGCGTGTTTTGAGTCTGTTCGAACGGGTCAACAAC
GAAGGGAAGTTTCAGGCAGATCTTGATGCCTGGCCCTGGTGGCTGCTTTCATTTCCTTC
CAGTATCAGTGCTAAACAGGAATGAACATGTTCAAGCCCCGTCTCACCCACCTCTGGCAT
CTTCGCCCTAACTCTGCCCTAGAAGACCTTTCCTTCGGTATCGTCAAGAAAACCTGAAGTT
GCTGTTTCACTCCTTCTCCACCCAGAACTTCGCTGCATCTTCCTGGATCCCTAGCTCC
TTGCACCCATGATCCTGTCTCCTTCTCAGCCCGGCTTCTGGCTGAGCAGCCTGCACTTG
CTGTCTTCACTCCTACACGCTGCCCCCACTCCTACACGCTGCCCTGCGTGCTTNTCACT
TCTTACCCTTCC

Sequence 1102

GTCCGTATCCTATCTTCAAATTTTTTAAATATGTTCAAATATCTGGAGGGTGAGAAGTT
ACCAAGTTTGTATGTTTTGTTGACTCACCATCTTATTTTCTGTATATGTAGTAGCTGG
CAATTGCATATATTTTCTTGATTAAACATATTAGAGACTGCTTCCATCATCTTATGTAAAC
CTGGAAACAAGCTGAACTAGTCTTTTCTGAAGAACCGTGATCAGTGTTAGATGTGCAT
CCCGTTTTGTCATTCCCTCAGACTTTGAATACAGTCATTACTCTCTGGAAGAGAAATGTA
AGTATATTTTTTGTATCTGCAGTATGGTTTAAACATGTATTAATAATACACATATGCAGA
CTCACTAAAGTATCCCCAGTAATTAGTAAATTCCAAAT

Sequence 1103

ANTTGGGTACCCCCGGCCNGGCCAGNTGCGCGCGGGCGGGGCATGCTGCTCGTCCCCCGC
GCCCCCGGCCCGGACACTTGGCGGGTGCCACGAGGACCCGAGCAGCACGTGCGGTCCCC
CGGCGTTCCTGGGCGTGTTCCGGCCCGGTGCGCGGACCTNNGCGGGAGTTGGGGCNTGGG
GGGCGGCNGCCGTTGGTNCGGACAGNCNGGGTGCGCACTTGGGCCCCCNTGNCCATGGCN
GCAAAGGTGGACCTGAGCACCTCCACCGACTGGAAGGAGGCGAAATCCTTTCTGAAGGGC
CTGAGTGACAAGCAGCGGGAGGAACATTACTTNTGCAAGGACTTNTCAGGCTGAANAAG
ATCCCNACATGGAAGGANATGGCGAAAGGGGTGGCTGT

Sequence 1104

TGCCNCGCGTCCGAGCATCTCAGGTAACAATTTGAGCATAACTTTAACCATAACTTATGA
TAGCATAATAACATTCATTAGTAATTCAGTAGCCGTATGTGCCAGGCTGTGTTAGGTGCT
TTATATATTGTTAATTTTTTAAAACTTGTGGAGTGACAGATTGGTAAGGTGACATTGT
ATCACAAAGCTAGTCTTTGAGTCCAAAGTTTTGTGGTTTTATGTTATGATATACTTTTAT

TABLE 1
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CATGGAATTGTCTTATTAATGTTTTGCCAGTGGTTCTTAAAGTGTGTTTCTGACACCAG
TAGCATTGACTTCACTTAGAAACCTGTTAGAAATACAAATTATTTGGCCCCACCCAACAC
TTGAGTCACAACTTTGCAGATGGGGCTCAATCTGTTTTACAAGCGCTTCATGTAATTT
TGATGCAGGCCCTAAGTTTTGAGCCCTGCAGTATGCATTTCTATTTTTAAGCAAAGATCT
TGGTCTTTCTTTTGGACATTGTAGAAATAACATGAACCTGGTTTTTGGTTTGGNNTTGG
NTTTGGTTTGGT

Sequence 1105

ACGCGTCCGCTCTGGTCAAGCAGGCGGTACTTCTCCTTGGATGTCTCAGCCACAGTGCCT
ATCAGGGTACTGAGGGAGAGCACACATGGCCCGAGGCCCTNGGAGCCCTCGGAGGCTGAG
TCAAAAGAGTCTCCCTCGAATTGGTGGGCCTTTAGAAGACTTGGCTTCTTCACTGGAGAG
CTATAAAGTAAACACCACACTGAGGGCCCTCGTCCCAGGAAGGCCTTCAGAGCATTTTCA
TTTCTGAACACGTCCCTCATCTTTCAAGATTTTCTGGTCTCTAAAGCTGAGAACTAC
AAGCACTGAAATGAGATGAGTTTTGATAAGGATGGTAATGAAGCACAAAAGCGTTATTCA
CATTACTCACTGACTTTAATATAATTTTGAATATTTTCACTTTTGA AAAACAAAATAG
CCTGGGCGACAAGANTGAGACTCCATCTCAAAGGTAAAANAATTTAANCTGGGTGCCNG
CCGCTTGACTATGTCTAGAGAAAAAACTTCCACA

Sequence 1106

GACCCANAGAAAAAGNGCCAAAGGGCATGTCAAGCAATTGAAGTTAAGCTCATGTTTTTA
AAGATCCGTTTATTGAGATGATTTTGAATGCTCCTTTACCATTCAATTTAAAAATAA
AGTTTAAACAATGGTTTAAATTCANAATGGATTAAAATGGAGTTGGGGGTGGAAAGTAGAG
CCATTCTTAGTAAATATAAATAACTGAAAAGTTCTTCTGAGGAGACTATGTACCGAAGTT
ATCATTGCATCTTTCAGTATAGGCAGATCTCTCCCTCATATAACCGGATGTTTCTTGGCG
CTTGGAATATCAGATAAAGGTAAAGTTTAAAGAACTTCTCTAGCGGGGATTTAGGGAAC
TTCTTAAACCTAGAGTTAAAAGCTGTTGCGTGTTGTTGTGTTATTTTAGACCAATCAA
CTTCATAGGCTAGACTAGTCTAGA

Sequence 1107

ACGCGTCCGAAAAATTCACAGGGTGTGTTGGCACACGCCTGTAATGCCAGCTACTCAGGTG
GCTGAGGCATAAGAATTGCTTGAGCCTGGGAGGCAGAGATTGCACTGAGCCGAGATCGCG
CCACTATACCTCAGCCTGGGCAACANACATCCTGTCTCAAATAAATTAATTAACATTA
TGTTTAAAGAAGTCTAAATAAGATTATGCTGCCCTCCCTCAGATAATGAGGGAAC
CTGGGGTACTTCTGGGCTACTCTGGGGGACAAAGTATAACTATTCAAATGGCAATTGAA
TTAGTACAGTCTAGGAGCCTTGGAGATGGCTTCTTGAAGAGGTAGAACCTGAAATTC
CTTCCTTGAGGGACGNCAGGATTTGGCCAGATGAAAAGGCAAGTGGAAGGCTTTCAGG
GACAAGCAATGTAANCAGANCCTAGAAATGG

Sequence 1108

TCGACCCCGCGTCCGGNGTAATTCTAGGGGAAATNATATTTCTGAACAACAATGTTGGTT
TGTGCAGGAAAATCACCAAAGAACATGACTAGAAAAGTGATAGCTACAGTTTCCCTCTTT
TAAATGGGAATAGCAAAACATATAAAGAATATTGATAGGCCGGGTGCGGTGGCTCACGCC
TGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCAGATCAAGAGGTGAGGAGATCGAGAC
CATCATGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAATACAAAAAATTAGCCGGGC
GTGGTGGTGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATGGCGTGA
ATCCGGGAGGTGGAGCTTGCAGTGAGCCGAGATCGCGCCACTGCACTCCAGCCTGGGTGA
CAGAGCGAGAGACTCTGCCTCAAACAAAAAAGNNAAAAA

Sequence 1109

CCGTCTCTGGCTTGGCCAGGTTTAAATTAATAAAAATGAAGATGAAAATAAGTTGTCAGA
TTTAGGATGTATTTAGAAACCAACTGATAATTTGCCAACTAATTGGATGCAGAGAGTA
AGAGGGAGACTCAAGAACACCTCTAAGATTTTACCCTGATCAATGGGATAGGTGAAAGT
ACATTAATGGAGATTGAGAATCCTGGTGGAGGTACAAGTTTAGGGTACTGAAGAGTGTCT
TTTGGACATGTGAATCTTAGAAGCCTACTAGATTCTCCAAATGGAGACATAAAACATAA
TTGAATACAAAAGTCAGGAGTTCAGGAGAGGGCTGAGCTAAAGATACAAATTTGATAGAC
ATGAGCATTTAAAAAAACTGCATGAAAATACTAAAGATAGGCTGTCCTGCCTATGGAAT

TABLE 1

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AGCCATTCTTTGATCCCTTTACTTTCTTAATAAACTTGGTTTCACCTTACTCTATGGACT
TCCCCCAAATTCTTTCTTGTGTGAGGTCCAAAACTCTCTGTTGGGGTCTAGATCAGACC
CTTTTCAAGTACATCTTCTGATGAACCACAAANGGATTATACTAAAGAGACCCCCCACC

Sequence 1110

CCGGNAATTTGCTTATTCTAATTGAGACACANTGGTGGGGAGTGGGGGTCTGGGGACTACA
CAGGTGCATTTTCTGAACATTTATAAAATGAAAAAGATGGAGGCTTGGCTAGAATGGTTA
ATCCCCTTTTCATTCTCTAATTCTATGACAATTTTTTAAAAAACCAACACAACCAAA
ATAAGAGTGGACAGTTGAGAATTACCTTTAGGTTCCCATGACCCTGAAGACTGTATTGG
CCTTGGATCCATTAAAAA

Sequence 1111

CCCACGCGTCCGCGGCCATTTCTGTATCCCCCTGCCTGGGTTTGCTGCCCTTTATGCTCC
TACCTCACCAGGTACAAGGAACATGAAGATGGCTATATGCGGCTGCAGCTGGTTCGCTAC
GAGAGTGTAGAGCTGACACAGCACTGCTGCGCAACCACAAGAGGGATCGGGCCTGGGA
ACGTCGCTGAACGAGAGCAGCCTGCAGGGCATTATTCTAGAAACAGTGCCAGGGGAGCCA
GGACGTAAGGAAGAGGAAGAGGAGGGCAAGGGTAGCGAAGGGACAGCCCTCTCAGCCTCT
CAGGACAACCCAGTTCTGTCTATCCAGTGGTGAATCAGACCAATGCCAAGGCCAGCAA
GAGATTGTCTACTATGTGCTGTCTGAAGCCCCAGGGGAGCCTCCCCAGCCCCTGAGCCA
CCTTCAGGGGGCATCATGGAAGCTTCAAGGAATAGCTGAGGAGCCAGAGATCCAGATG
GTTTGAAGGCCGAGAGCCAGACCATTCTTCCCAGGTCTGAAAGTTTGAGCCAGGCAAG
TGGCAGTGCCCCTAGTGGGCAGCCGTTGCCAATGGATGCC

Sequence 1112

CCCCCGCGTCCGTAATTTTAAAGAACCTTGTTATTAGAAAATCTCAGCCTAATACAATCT
GAAGTTAAGAGTTTATGACGACATTGTTTTCTAAGTAGATTAGCTATAGATTTTCTTCT
GGCCAAACAAGGAAGAGTATATGCCCTTGTAATGAGTCTTGTTTTGTTATTTAAATAGT
CAGTCAAAACGTAGAAATCAGTATACGTAAATAAAATGCATGAGACTATTAATCTTTT
CATATACTCTACAAATAAAATGAAATCTGTGTGTGGTCTGGTTGACTGGGCATCTAAAG
GGAATCAGAAAAGAGATTGTGAAAAGTTATATATATATCCTCTTCTTATTTTAGTTTTG
CTTTTTCTATTTTCCATAATTAAAGTGCCGTTTACAAAGTGCCATCAAAAAATTGAAGCA
GGCCAGGCATGGTGGCTCATGCCTGTGGTCCCAGCAGTTTGGGAGGCTGAGGGCAGGTGG
ATCACTTGAGATCGGGGGTTTCGTGACCAGCCTGGCCAACATGGTGAAAGCCCCTCTCTAC
TGGAATATAAAAAATTAGCCCGCGTGGTGGCATGTGCCTGTGGTTCGCAGCTACTTGGA
GGCTAAGACAGGAGAATTGCTTGGGCCCTGGGAGGGGGGAGTTCANNNGNCCTGGANCGN
CCCCTGNNCTCNANCCCTGGCAACCANTGNNGACACCNCTTAAAAA

Sequence 1113

TCGACCCCGCGTCCGGTTTTTTGTCCCAGCAGTGGCATTAAATTACTGTACTTTAAGAC
ATGGAATTGCTGGAGGCTTGAAACTTGAGTGCAATTTCCCTAGTACGACCTCCAAGGAG
AATAGAGCAAAACAGTGGTAGGAAAACTCTCAAATTTTACCCAATTGTATGTTTTCTA
CATTGTCAGTATCTAGTTTTATATAGTTAATATGTACTTCTAAAATTTCTGACAGTGNTT
GGTGTATAAAACAGACCAAGCTCAAGATGTAAAGAAGATTGAGAAATTCACANTCAACT
AATGCGACTTATGGTAGCCAAGGAAGCCCGCAATGTTACCATGGAAGCTGAGTGAATGGT
TTGAAATGAAGACTTTGTCGTGTAAGGAGTAAATATCTTTGAATTAGAGAAAGTG
TTGGGACAGAAAGTACTTTATGTAAGTAAAGTGGGCTGTTGAGAAGCTTAGAGGTCATTTT
TTGTAATTTTNTTTTAATTACTTTAGAAGAGCTAGGGATGCAATGTTTTCAATTTGGA
AAGCCTTTATTTACTTTTTGGGAAA

Sequence 1114

TCGACCCCGCGTCCGATTCTTCTTCATATATTATGTCAGAAGAGTTTGAGAAGAAATGG
TATTAATTCCTTTTAAATGTTAGGTTGACTCACCAGTTAATGCAGCTATTTGGTCATAA
ATGTTTCTTTGTTAATCACTTTCGATTACTAATTCAATCTGCTAGGTTATAGGTCTATT
AGATTTTCTCTTCTTCTTGAGCCACTTTGGTAGTTTGTGTCTTCTAGTGATTCGTCCA
TTTCATCCAGGACAGCTAATTTGTTGTTAGACAGTTGTTACAGTATACTCCTGTAATCC

TABLE 1
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TTTTGTAATTTCTGTAAAGTTGGTAGTAATGGCTCTGCTTTCATTTATTATTTTAATAATT
AGTCTTCCATCTTTTGCTCAGTCAATATAGTGAAAGGCTTGATCTTCAAATAATCTATG
TTTATTCATTCTACTGCTCTCCAACTTCTATTTTATTGATTTATGCTCTAATTATGCTC
TCTATTATTTCTTTCATACTGCTAGCTTTGGATTAGGCTTATTTGNCTTCTTC

Sequence 1115

GCCCCGCGTCCGGGATGACTAATGAAAGCAATNAGCTTGAACATTTAGAAAAAATTCATA
TATGATCTAAATTTTTATATTATCATTTCTGTGCCCTTCTAATTCCTGCATCCTGTTCAAA
ACATCTTCCAGACATTAACCTTACACATTGTATAAAACCGACCAAATGATTTCCCTAAAG
TTCATGCAAAAAAAAAAAAAACAACCTAATTTCTGTTAATATAAAAGAAACTTCAGTT
TACTGACCGTGAAACAGACTATGTACTGACATCCAGGGTAAAGTAAAGACTTTTAAATA
TTGGTCATTAAGGACAGGAGCTAAGCTAGCAAAGCAAACATCTTTAGCACTTTGCAGA
TCTCAAGCAGTTAACCAGGCTCTGATTCCCTTCCACTGTTTTATGAATTAATCCAGTTC
TTTTCATGTATCTTTGAACCTAAGATTATGAAGTAATTTCCCTATTAGGGACTAGAATGA
CTTCAGTTTTTTTCATTTGATAAAAATCAGAAGCTACCTTTCCCTTTTTAATGATGCA
AAATGTAGATGAGTGCATTAAGGGTTGTAAAGGATCTTTATCATTTTATGNCATTCATTGA
AAATTGAAATGTTTCATTCTTTTTAATGGTT

Sequence 1116

CNGCTTTCGTCTCTTCCCTTTNAAGTTGATACCCTTCTTTTTCTTGTCATTTTGCATTGCC
TGGGACCTCCAGAATAATGTTTCATGAAGTAGCATGTATCCATATCTGGTTCTTGACTTT
TTCATCATTATAATTGTTTTCTATGGGTTACTTATCAGTTTAAGAATGCTTAATTCCTAG
ATGAACTAAGAGTGTTTATTACATGTTGAGATTTATGGTATGCTTTTTCTTCTCAAGAT
AATGCATTTTTGTATTATCTGTAAATGTGATAGGTTATCCATTTGTGTATTTTCAATCA
TTGAACAACCTTGATTTTTTTGGATAAACTCTATTTGGTCATTATGCATCATTCTATAA
ACCCTGCTGAATTTTTCATTTGCCAACATCTTATTTAGATTCTTTAATCTGTGTCCAA
CAATGAGATTTGTTTTCTTTGCAATTTGTTTTGAATTTTTGGTATCAGAGCTATACTAA
CCTTATAATGAAAAATACATATTTCTCAAACCTTTACACTGATATATTCATAGTATTTTT
TTATAATTTGAAAAATCTTGTCAGTATCTGTATTAAGGCCTNCATTTAGTTCTGCTATT
TCATATTGCCTTAAGGTGGCTATTTGGCTCTTTAAGGACCCCGATTTGATTTGTATT
TTTAAATAAAACCCCATTTATGCTATAAAAAAAA

Sequence 1117

GCCTTTTATGGTGATGGAATATGTCTCAGGAGGAGAGCTATTTGATTATATCTGTAAGAA
TGGAAGGGTAAGCTGTTCTGCTTTAATCTGTATGTATTTTGTNNCTNGNCCTTTATCCT
TTACTAGCATCAAAATGTCAGCAACCAATTTAAGAGGTCTATTTAATAACCAAGTTCCCT
TAGTCATATATTTGTTTGAATCATAAACTATGTAGAAGTAAAGGATCTTAAAGATTA
TCTCCTTAGCCTGTTTATACAGATGTGGATACTGAGCCTCGCGGCTTATATGATTGCTCA
CAGTAACGTGATTTATTAATGACGGAATTGGCTTGAGCCCCCAGAACTCATAATCCTCAG
ACTTATGCTTCCAGGGTATACAAATACTTTGAATATGTATCTTAATGTAATTAATCGTAC
CAATATATTATTACT

Sequence 1118

GCGTCCGTTGTCATCTATTTACTTTACATATGTCATAAACCTAACACTACATGGTCATTT
TTGTTTAAACAGTCAATTACCTTTTAAAGGGATTTGAATAATAAGTCAAAATCTAATACA
TTAACTGTGTAGTTAGCATTTCTGGTGCTCTTCTTTCTTTCTGTAGATCCATACTTCCA
TCTGGCATTATTTTCTACTGCCAGAAGGACTTCCTTTAAACATTTCTTGTAGTGTAGATC
TGCTGGTGATGAATCTTTCAGCTTTTGAATTTCTTTGTCTTTGAAAGGTATTTTCCCT
GAGTATAGGTTAATAGCTTTTTCTTTTCACTACTCTAAAGATGTTGCTCCAGGCCAGGCG
CGGTGGCTCACTCCTGTAATCCCAGCACTTTGGGAGTCTTGAGGTGGGCAGAACACTTGA
GGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGTGAAACCCCGTGCTTCTAAACATAT
TAAAGAAAAAAGA

Sequence 1119

NCGTGACATGCTGGCTGCTAGTNAGCTCCCCCATGATTGTCAGCTTCCGAGCCCTCACTA
GAAGCAGATACCACCCACCACCATGTTTCTTTAAAGCCTGCAGAACTGNGAACCAATT

TABLE 1

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AAAACTCTTTTCTTTATAAATTATCCAGCCTCAAGTATTTATAGCAACACAATAATGGCC
TAACACAACCTACAACCTCTATATGTATTTGTGTGTATTTAAAACATGCAGGAAATAAC
ACAGAATCCAAGGCACCCAAAACCTATTAATAAATGGAATCAAGAATTCATATGCCATTA
TGAAATTAGCCAGTCCTAAAATCTGACCTCTCTGCATTTTACATTATTCTCCTCTCTCT
ATCCCTGCCTTCCTCCCTCCCTTCCTCCAACCTGTCAGAATTGTCCTGTAATCAAACATGT
TCACATCACAGCTTTTCATTTTCTATTTCCAATCAATTGACCAGTCTAGCCAAGTAGCAT
CCTGGATCCCGTATTACATATTCCTAGGACAGGAAGCCAGATTTTT

Sequence 1120

AGCTCTTTAGCAGGAGACAATTCTTAACTTAAATTAACTGAAAAAGCCACAGAAAAAA
GGGTTTGACACCCTAAAGCCAGTGTCCAAATGAACGCTACGGTTGNCCTCATAGGTGTGT
TATGAATGTTTACCCTGACCTCCTAGAAGAAAAGGAAAAAGAAAGGAAAGAGAGAGGGGAG
AAGGTGAGGGGAAGGGGGGAAGAAAAGAAAGGAGAGAGAAAAGAACAGAGAAAAAACAGGG
AGGGAGGAAGCTGGGGAAGGAAAAAGACCATTGCTGACTCCGTTGTTTTATTTCACAGA
ATGATTCAATACCTCAAGAAGATTTCACTCCAGAAGTGTACAGAGTTTTCTCAACAACC
TTTGCCCTCGACCTGAAATTGATAACATCTTTTCAGAATTGTAAGAGTACACATTTTAAG
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TTGGAGATGGAAGAACATCATACACTGTGTCTAAA

Sequence 1121

CGGCCGAGGTACTATAATGGTCCCCATCTTAATTTGAAAGCGTTTGAGAATCTTTTAGGA
CANGCACTGACGAAGGCACTNGAAGACTCCAGCTTCCTGAAAAGAAGTGGCAGGGACAGT
GGCTACGGTGACATCTGGTGTCTGAACGTGGAGAATTTCTTGCTCCTCAAGGCACCAT
AAGAGAGAAGATTCTTTGAAAGCTTGGACTCTTTGGGCTCGAGGTCATTGACAAGCTGC
TCCTCTGATATCACGTTGAGAGGGGGGGCGTGAAGTTTTGAAAGTGACACAGATTTCGGAA
TTTACATTCAAGATGCAGGATTATAATAAGATGATATGTCCGTATCGAAGGATTTCCGGC
TGTTGAGCCAAAGACTGCGTTACCCCTCAATCGTTTTTACCCAACAAAAGTAGACAGCC
ATCCTATGTACCTGCCCG

Sequence 1122

CCCTTTGAGCGGCCNTNCGGGCTTNTACGCGGGGGCAGCGGGAAGCTCGCAGCAGCTGG
GGAGGAGCCAAAGCCTCGGCGCTCACCTAAGCCGAGGGAGATACACCCAACTGGGAGAT
GAGGAAACAGCAACCCAGAGAGGAGAACTAACCACACAGGATCATTTCGCGAAGGAGCA
AGGCTGAAGAACCAGACCTGGACTTTCTTAGGACAACTTACTGCAGCTTGAAGGAGCCA
ACCATGGATTGAGGCGTGTGAAGGAATATTTCTCCTGGCTCTACTATCAATACCAAAATC
ATTAGCTGCTGTGCTGTTTTAGAGCCCTGGGAGCGATCTATGTTTAACACCATCTTACTA
ACCATATTGCTATGGTGGTATACACTGCCTATGTCTTTATTCCAATCCACATTCGCCTG
GCTTGGGAATTTTTCTCAAAAATAT

Sequence 1123

CCCTTTGAGCGGCCGTCNCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACC
ACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACA
ACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGCTTTGGCATTCTTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGA
GAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAG
AATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAG
TTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCAT
ACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAGT
TCTGGGAGAGGGACCAAGATTGGGG

Sequence 1124

CCCTTATTTTNGGCNTTNGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTAT
AGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCA
AAAAATTGCCAAAATGCNACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTT
GGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGG
TTTGAGTCTGGAAGCCTNATCCCTTCANCATCAAGCTGGAATGGGGAATGAAGAATGGA

TABLE 1
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NATGTGGTGCCCACTAGGCTACTGNTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTA
TTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTA

Sequence 1125

CCCTTANCGTGNTCNCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCAC
TNTATAGAGGGTGGGAAAATAAACCANAAATCAAGGGAGAAAGAAAAGATGAAAGACAAA
CTGCAAAAATGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCAT
GTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAG
AGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCGTCAAGCTGGAATGGGGAATGAAGA
ATAGAGATGTGGTGCCCACTANGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGT
TGGTATTCAAAATATGTAATGGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCAT
ACCACTGGACAGGGTTATTGTTAACACCTGAATTG

Sequence 1126

CCCTTTCGAGCGCGCCGCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTNNGGACTTGCG
ACAGTTCCACCTTTTACTCTCATTGGTAAATCTCCTTTTAATTATTAATAATATTGATA
AATTTATTAATTAAGTCTTINATTCTTTTGTAAATCAGAAGAGGACATTAATGTTGCGTG
TCTTGACTGTCTTTTTGCTTTGTAGATTTATTTGTGCTAAATGAGAACGATATGCATG
TTTGTGNTTGATTTTTCCAGAAGCAGTTACTTTAATTCTTTTTTAAGNGCTGATTTTGT
TTTTGCTTAGGCATTAGTTTCTTCTCCTTTATAGNTTTTCAAAATCAATTAATTCCT
TTATTTGTTTTGAAAGAAGTAAATTTGGGGTAATTTTTCTTATCACGCCCAATATGAAG
AGTTAAAAAATTACCAACTGATTGCATTTCTTACTTAATTTTGCAATCGATTTTACTT
CATCAAAAAAAGAATTTAANAATTAATTTACCTTGTTGAGGTCTTGGAATTTNCACGCC
CTCTAAGACGAAGAGCCACTTTTACTCTGCGTATCTAATAAAAATTCTTTGGCTTTTTTT
GCTT

Sequence 1127

CCCTTAGCGTGGTCGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCAC
TTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAAA
CTGCAAAAATGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCAT
GTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAG
AGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGA
ATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGT
TGGTATTCAAAATATGTAATGACTGGTATGGCAA

Sequence 1128

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TATTTCTCCTCTCCTGTTTTACAAACCAAGAAATCCCCAGGTAGGCCAATCCCAGAGGT
GCCATTTAGCAGTATGCAGCAGCCCAGTTTCAGCATAACAAAACATGCCTTGGTAGTGGC
TCTCTCATGCAATAAAAGAAAGCTTAAGAAATCTTGTTGTAGGTGGATTAGGCAAGGC
TGCCATTGAGCTGGTATAAGCTAAAAGTAAAAATCAAAACGCTCAAGAAAACGGACACA
ATTTTGAATGATTAAAGATGTCTTTATAAAGTTTTTTCAAGACTTCATTCTAAATACA
CAGAATAAAAAATGGGTGTCAGCTCACTTGTAAGACACCAACCAGATTTTCCTTATACTG
TCTCAAAATTTAAAGATCAATTTCCCCAGAAGGTGTNCAATGCATCATAAATGGCCCTT
TTTTGAGGATGGGAGAGGAAGGGTTGGGCAGGATGGAATATTAAATTGTACATGGATAAA
CATGCCAAGACTGTTATCCAATCTAGATAATTTATATACATTTTGATGACTTAAGGAAAA
CAAAGCAATCATTTGGTGACAGCCTAAAAAGCNTGACCNTATTTAACATACTTAGGAAC
TTTTTNGG

Sequence 1129

CGTTCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCCTTTATAGAGGGTGTAA
AAATAAACCAAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAATTGCCA
AAATGCGACTTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTC
AGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTG
GAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCC

CACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAAATATG
TAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATACCACTGGACAGGGTTA
TGTTAACACCTGAATTGCTGGGTCTTGAAGAGAGCCCAAGGAGTTCTGGGAAGAGGGACC
AGATTGGGGGGTAGGGTCACGGGCTTGGGTGATAGAATTATTTCTCGAATGACTTTCTTG
AGTGCCAAATTTGAACCTGAACATTTGCTTANTCACCTTTAGNGGAGTAATCTCCTGGGCT
TGGTTCTATATTTATATAAAG

CGGGCAGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTTGGTAGGCCATTACCCTA
CCAACTAACTAATGTTCCGCACCCCCATTTTTAAGTGAAGCTGTGAAGCTCCTTTCTATT
ACTCATCATGCGATAAATAACTATATCCGGTATTAGCTATTGGTTCCAATAAGTTATCCC
CAGTCTTAAANGTAGGTTAAGTACCTCNGGCCGGCCACCGGGNTGGAGCTCCAAATTNGC
CCTATAAGTGAGGTGCGATTTACGCCCCGCCTCACTTGGCCCCGNNGTTTTACAACCGTCC
GTNGACTNGGGAAAAACCCCTGGGCGTTTACCCCAANCTTTAATCCGCCCTTGGCAGCACAA
TCCCCCTTTTCGNCCAGGTTGGCGTNAATAANCGAAAAAGGCCCGGAACCGAATCGGCC
NTTCCNAACANGTTNGCGCCAGTNCTGGAATNGGCNAAATGGGGACCCCNCCCTTGTT
AACCGGGGNGCATTTAAACNCCGGCCGGNTGNTGGTTGGNTTACCCCCAANNGGTGAC
CCGNNTTCAACTTTGGCAAGGGCCCCCTAANGGCCGNNTTCTTTGNTTTTTTC

[illegible]

AGCTCACTCAAAGGGCGGTAATACGGGTTATCCACAAGAATCAAGGGGATAACCGCAGGA
AAGAAACATGTGAGCAAAAGGGCCAAGCAAAAGGGCCAGGAACCGTAAAAAGGGCCCGCG
TTGCTGGCNGTTTTTCCATAGGGCTCCCGCCCCCTGGACCGAAGCATCACAAAAAATCG
ACGCTCAAAGTTCAGAGGTGGGCGAAAACCCCGGACAAGG

CCCGGGAACAAAGCNGCAACCGNGCCCCCTCCAGGTCNACGGNNTCGANAAGCNCGA
AAACCGAATTTTGNAGNTTNGGGGACCACTANTTNGNGAGCGGGGGCCGANNNAGNG
CGGC

[illegible]

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ANAGAGGGGGNAAAAACAAACCAGAAACCAAGGGAGAAAGAAAAGANGAAAGACAAACNG
CAAAAAANNGCCAAAACGCGCACNANCAAAAAANGGACAGAGCNGAGGCCANNNGCAAGNC
ACGGCANACCGNCAGGAGCCGAANGAAAAAAGCAACAAGCAAGANGAAGACNCTGAGAG
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TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGCGGCAGGTACCAAATGAAGTGTG
AAGACAAGGCCATCCACCACTTTATAGAGGGTGTAATAAACCAGAAATCAAGGGAGA
AAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAG
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TABLE 1
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AAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAA
GCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAG
CTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATT
GGACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTC
TTGAGAGAGCCCAAGGAGTTCTGGGGAGAGGGACCAGATTGGGGG

Sequence 1141

ATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGAAGACAAG
GCCATCCACCACTTTATAGAGGGTGTAATAATAAACAGAAATCAAGGGAGAAAGAAAAG
ATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCT
GAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGAT
GAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAAT
GGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATT
CCTCCACCAAGTTGGTATTCAAATATGTAATGACTGGTATGGCAA

Sequence 1142

ATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGAAGACAAG
GCCATCCACCACTTTATAGAGGGTGTAATAATAAACAGAAATCAAGGGAGAAAGAAAAG
ATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCT
GAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGAT
GAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAAT
GGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATT
CCTCCACCAAGTTGGTATTCAAATATGTAATGACTGGTATGGCAAAAG

Sequence 1143

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCACTCTATCCATCGTGGATA
GAGAACTGAAGCTCTCTAAGACCCCTGCAGCTGGGAGGTGGCAGAGTCAATGGCAGCCC
TCAGCCCTATCTGCCCTGACATGGCATTCTCCCATTTCTCACCACCGAACCCCTCTAAAA
TAACAATGTGTGGGGTCCTTGGCTGAGAGACTTNCCTTTTGGGAATCAATCTGAATGTAT
GATGACAAAGAAAACAACCTTTGCTTTATACAACCTTCTGGTTAGATTCAAGGCACCAAGC
AGGACACTTCTTTGGCGCTCCAAGAATCTTCAAATCTTCATCACCATAACAAATC
TTTCTGCTTCTCTTAGAGCATCTTCTCCACAATTCTCACCCCTCAATTAAGAGGCACTGGA
ACACTTTCCAGCGGACAGGGTTTAGTGCTTTGATCTGTTCCGTCATGTCCTCTCCACGT
TGAAACGATTAATGACAGAATTTTTTTTGGAGGCGACTTATTAATCCCTACACCACCTN
CTCAGCTTTTGAAGGGTTTNCACATGGGTTCTTTT

Sequence 1144

GNAGCTCCCCGCGGTGGCGGCCGAGGTACGCCACCATGCCTGGCTAATTTTTGTATTTTT
AGTGGAGACGGGGTTTCACCATGTTGGCCAGGCTGTTCTCGAACTCCTGACCTCGTGATC
CACCCACATTGTCTCCCAAGTGCTGGGATTACAGGCGTGAGCCACTGTGCCATGAGGAT
TAGTAAAGTGCACTCATGGTAAGTAAAAAATTTGTTTTATGTTNATGCTGATTATATGA
AGGTCATCATAGCTTAGACACAATCAAACCCATGGGGAACATCTTGAATTCATTTTT
CTCTTTTCTTACAAAAAAGTAAATAGGTAAAATGGAAAATAGAAGACAACCTATCCTAT
CCTGGATGAGACACACACATATTTAAATTGAATTATAGACTTAAATTTAAGTAGGGANT
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NTTGGAAAATATGATTATGAAAGCAGACTTTTTGGATGGGNGCTTAATGACATTTAGGCG
ACATTTAAATGCCCTAGGNGNGGGAACACTTGAAATTGCCANCTAAATTTAAATGACC
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GANNAAGAAAATTTTTTTTTTAG

Sequence 1145

CNATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGAAGACA
AGGCCATCCACCACTTTATAGAGGGTGTAATAATAAACAGAAATCAAGGGAGAAAGAAA
AGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATT
CTGAGGCTTTGCATGTCTTGGCATTCTTCANGAGCTGAATGAAAAATGCAACAAGCAG
ATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGA

TABLE 1

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ATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGC

Sequence 1146

TTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCACGGTACTGTGTCAACAT
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GCAGCTCCCACATGTCTTCCAGAGGATGGAAGCTGAAAACCTAGCTTCAGTGATTGATGC
CAGGTTTAACTTTTTGTGAACAAGATTTGCCACAGTATCGTGATGCAGTCATGTCTCA
CACGCTCATCTATATCCCCTCCTACTTTGACTTCGTGCGTCTTCGAAATTACTTCAAGAA
GGAGGAATTGAATTTTACCCACATCTGCGAGTACCT

Sequence 1147

CCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGA
GAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAG
AATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAG
TTGGTNTTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGAATAAGACACTGGCCAT
ACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGGGAGCCCAAGGAGT
TCTGGGAGAGGGACCAGATTGGGGGGTAGGTCC

Sequence 1148

TTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGAGTTCT
GCGCAGCTTCCCGAGGCTCCGCACCAGCCGCGCTTCTGTCCGCCTGCAGGGCATTCCAGA
AAGATGAGGATATTTGCTGTCTTTATATTCATGACCTACTGGCATTGCTGAACGCATTT
ACTGTCACGGTTCCCAAGGACCTATATGTGGTAGAGTATGGTAGCAATATGACAATTGAA
TGCAAAATCCAGTAGAAAAACAATTAGACCTGGCTGCACTAATTGTCTATTGGGAAATG
GAGGATAAGAACATTATTCAATTTGTGCATGGAGAGGAAGACCTGAAGGTTGAGCATAGT
AGCTACAGACAGAGGGCCCGGCTGTTGAAGGACCAGCTCTCCCTGGGAAATGCTGCACCT
CAGATCACAAGATGTGAAATTGCAGGATGCAGGGGGTGTACCTTGGCCCGCTCTAGAAT
AGTG

Sequence 1149

TGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGA
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AGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGC
AGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCCAGGAGCTGAATGAAAAATGCAACA
AGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAG
CTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGC
TGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTG
GACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCT
TGAGGGGAGCCCAAGGAGTTCTGGGAGAGGGACCAGATTGGGGG

Sequence 1150

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTG
TGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGA
NAAAGAAAAGATGAANGACAACTGCAAAAAATTGCCAAAATGCNACTTTCTAAAAATGG
AGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCCAGGAGCTGAATTGAAAAAA

Sequence 1151

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTG
TGAGGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGA
GAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCTAAAAATGCGACTTTCTAAAAATGG
AGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCCAGGAGCTGAATGAAAAATGCA
ACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATC
AAGCTGGAATGGGGAACGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGG
AGCTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGA

TABLE 1

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Sequence 1152

CCGCGGTGGCGGCCGCGAGTTACCTGACGTATGACAACCCAGATATCTTGAAGAGGGTGTG
AGGATCAAGATCAAATGTGTTTCATGAGGTTTAAACAACCTGCCAAGGATGGCCTTTTGCT
GTGGAGGGGAGACAGCCCCATGAGACCCAACAGCGACTTCATTTCTTGGGCCCTTCGGGA
TGGAGCCCTCGTGTTTCAGCTATAACCTGGGCAGTGGTGTGGCATCCATCATGGTGAATGG
CTCCTTCAACGATGGTCGGTGGCACCAGTTAAGGCCGTTAGGGATGGCCAGTCAGGAAA
GATAACCGTGGATGACTACGGAGCCAGAACAGGCAAATCCCAGGCATGATGCGGCAGCT
TAACATCAATGGAGCTCTGTATGTGGGTGGAAT

Sequence 1153

GCNAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACGAACTAAATTTTTTAACTTTA
TTTGCTGTAAATTCTGTGAAGTTTCAGTTATCTAAATAAATATACACAAATATGAAAT
ATAATGTTTCAGATTGCAAGGTAATATGTAATAGTAGTGTGTAAGATACTCTTGCTA
ATATTAAGTAGTAGTATTTTGATTTGTACAATGTCACCCTCCAGCAACAAGAAGACAA
GCTACTGAATCAGTGTCCCTTTTACTATGGCATCAAAGATTTGGCTACTGTTTTCTTC
TACATGCTAGTGGCGATAATTATTCATGCCGTAATTCAAGAGTATATGTTGGATAAAAT
AACAGGCGAATGCACTTCTCCAAAACAAAACACAGCAAGTTTAATGAATCTGGTCAGCT
AGTGCGTTCTACCTTTTTGCCTGTGTTTGGGGCACA

Sequence 1154

GAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGCTTGGCATTCCCTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGA
GAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAG
AATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAG
TTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCAT
ACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAGT
TCTGGGAGAGGGACAGATTGGGGGGT

Sequence 1155

TGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAATGTGTGAAGACAAGGCCATCCA
CCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAGA
CAAAGTCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTT
GCATGTCTTGGCATTTCCTCAGGAGCTGAATGAAAAATGCANCAAGCANATGAAGACT
CTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAAT
GAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCAC
CAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGG
CCATACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGG

Sequence 1156

CCGCGGTGGCGGCCGCCCGGGCAGGTACATTGGCACGTACGATGTCTTGAGTTTCATTG
ACTAGGTGGCAGCCTGCATCGTTCCACTGCAAAATGACTGAAATCCCAAAACACACAATGA
GGCTGGCTCAGGTTTGACTCTATCTTGAAAAAATAGGAAAACCTTCATTTATGGAATAG
TTTTGAATAACCGTGGATATCACAGGTCCATTGACCTGAGCATTTCATTTTTGGAACG
GGTAGAATGTTCCCAAGAGTCAACGAGGCCATGCTGATAATAGTTTCTGGAAGGGATCTC
TGGAATTGGTCTGACCAATTAAACACACGGCCTCTGATGGGAATAGATGTATTTTGGGA
CACATTTTAACTGATAGCTGTAACCCCTTTTGAGTTGGCTTTTGTTCACTGGAATCCCT
TTCCAGTCAATGAATTTCCGAGAAAAATTGAGAGGAAGAGCTGTGCGAGGCACCAAGAGT
CTGATGTTTTCT

Sequence 1157

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGCAGTGG
GAAGCTCGCAGCAGCTGGGGAGGAGCCAAAGCCTCGGCGCTCACCTAAGCCGAGGGAGA
TACACCAACTGGGAGATGAGGAAACAGCAACCCAGAGAGGAGAACTAACCACACAGGA

TABLE 1
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TCATTCGTGAAGGAGCAAGGCTGAAGAACCAGACCTGGACTTTCTTAGGACAACTTAC
TGCAGCTTGAAGGAGCCAACCATGGATTTGAGGCGTGTGAAGGAATATTTCTCCTGGCTC
TACTATCAATACCAAATCATTAGCTGCTGTGCTGTTTTAGAGCCCTGGGAGCGATCTATG
TTTAACACCATCTTACTAACCATTATTGCTATGGGTGGGTATACACTGCCTATGTCTTTA
TTCCAATCCACATTGCGCTGGGCTTGGGAATTTTCTTCAAAAATATGTGGATATCACAG
GNCCTCGGCCGCTCTAGAACTAGTGGGATCCCCCGGGCTTGCAGGGNAT

Sequence 1158

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTACGCGGGGCAGTGGGA
AGCTCGCAGCAGCTGGGGAGGAGCCAAAGCCTCGGCGCTCACCTAAGCCGCAGGGAGATA
CACCCAATGGGAGATGAGGAAACAGCAACCCAGAGAGGAGAACTAACCACACAGGATC
ATTCGTGAAGGAGCAAGGCTGAAGAACCAGACCTGGACTTTCTTAGGACAACTTACTG
CAGCTTGAAGGAGCCAACCATGGATTTGAGGCGTGTGAAGGAATATTTCTCCTGGCTCTA
CTATCAATACCAAATCATTAGCTGCTGTGCTGTTTTAGAGCCCTGGGAGCCGATCTATGT
TTAACACCATCTTACTAACCATTATTGCT

Sequence 1159

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTACGCGGGGCAGTGGGA
GCTCGCAGCAGCTGGGGAGGAGCCAAAGCCTCGGCGCTCACCTAAGCCGCAGGGAGATAC
ACCCAATGGGAGATGAGGAAACAGCAACCCAGAGAGGAGAACTAACCACACAGGATCA
TTTCGTGAAGGAGCAAGGCTGAAGAACCAGACCTGGACTTTCTTAGGACAACTTACTGC
AGCTTGAAGGAGCCAACCATGGATTTGAGGCGTGTGAAGGAATATTTCTCCTGGCTCTAC
TATCAATACCAAATCATTAGCTGCTGTGCTGTTTTAGAGCCCTGGGAGCGATCTATGTT
AACACCATCTTACTAACCATTATTGCTATGGGTGGTATACACTGCCTATGTCTTTATTCC
AATCCACATTGCGCTGGCTTGGGAATTTTCTCA

Sequence 1160

CCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCCTTTATA
GAGGGTGTAAAAATAAACACAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAA
AAAATTGCCAAATGCGACTTTCTAAAAATGGAGCANATTCTGAGGCTTTGCATGTCTTG
GCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAAGGGGT
TTGGAGTCTGGAAGCCTCATCCCTTNA GCATCAAGCTGGAATGGGAATGAAGAATAGAN
ATGTGGTGCCCA

Sequence 1161

ACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCGGAAGGTGGGTGACGTGCGGA
TCTTCTTCTTTTGTGGCTGTGGACACCTTTCAACACTGCCTTCTTGGCCTTTAAAGCCT
TCGCTTTGGCTTCAGCTTTAGGAGGGGCAGGAGCCCATCGCAAAACCACGCTGCGGAGAG
AGGGGCGGGTAATGTAGCCCGGTTGAACATGAACCAGAAGGAAAATGGTTAAAGCTGAGG
GCACTAATTCCTTACAGGCCCGGGGACATGGAGCTCCAACCAGTGGATGCATGTAGCTTC
CCAGAACCGAATGTCTGCCCCGCGTACCT

Sequence 1162

CCGCGGTGGCGGCCGAGGTACCACTCTATCCATCGNNGATAGAGAACTGAAGCTCTCTA
AAGACCCTGCANCTGGGAGGTGGCAGAGTCAATGGCAGCCCTCAGCCCTATCTGCCCTGA
CATGGCATTCTCCATTTCTCACCACCGAACCCTCTAAAATAACAATGTGTGGGGTCTT
TGGCTGAGAGACTTCCCTTTTGGGAATCAATCTGAATGTATGATGACAAAGAAAACAACT
TTTGCTTTATACAACCTTNTGGTTAGATTCAAGCACCAAGCAGGACACTTCTTTGTGGCG
CTCCAAGAATCTTCAAATTTCTTCATCACAATAACAATCTTCTGCTTCTCTTAGAGC
ATCTTCTCCACAATTCTCACCCTCAATTAAGAGGCACTGGAACACTTTCCAGCGGACAGG
GTTTAGT

Sequence 1163

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGA
CAAGGCCATCCACCCTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAAAGA
AAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGA
TTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGC

TABLE 1
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AGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTG
GAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGA
AATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGAC
TAAGACACTGGCCATACCACTGGACAGGGTTATGTTAACACCT

Sequence 1164

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCNNGGCACGGTNCCAAATGAAC
GTGTGAAGACAAGGCCATNCACCACTTTATAGAGGGTGTAATAATAAACAGGAAATCAA
GGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAA
ATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAA
TGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAG
CATCAANCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAA
AGGGAGCTGAAATTCCTCCACCAAGTT

Sequence 1165

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATCATTTTCTTTNTCCTGT
CCATAAATCTTCTCCACCACGTGGCTGTGTNCAAGACTCTCTGAACCTNCTCTGGCTCA
GGAGGCTTNTAGATNTGTGAATTGTCTGCTCAGTNNACTCCATTAAATTNAATNTGGCC
AAGAANTTTCTTCTTAACAGNGGTATTGATGACCATTATCCTTCAACCTAACCTGCTC
ATTAA

Sequence 1166

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGAC
AAGGCCATCCACCACTTTATAGAGGGTGTAATAATAAACAGAAATCAAGGGAGAAAGAA
AAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGAT
TCTGAGGCTTTGCATGTCTT

Sequence 1167

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAACAAGCGTTTGT
AATGTTTCCCAAATATTAGCTTTGAAATCCAAATGTCAAGCAGGTTAAAGTTCANAAAC
TATAAATGTAATTGTTAATAAAACATGGATGAAAAAGTCATTGAAATTTTTTCTACT
TGGATTAAGAACATAAATTAAGAGTGCAACTGCAAAAAATAATATTAGTTTGATAAGTAAA
ATAAAACAACTAGATATATTTTGAATAAAAAACAAATGAAACAAAAATAAAATTTAGG
TAAAGAAAATTCACGTAATTTGTTGTAGCTATATTTTGTATAATTACAAAAGTAGA
AATAATAGCTCATAAAGCAAAAACAAATTTATTCTATGTTCTTTTTCAGTCAATTCA
GAATTTTAGCTTCATATTTGAAGCATTTTTTCTAATTTTGTGNGAATTTGAATTTGT
TTGCGGATTTTGATTTGCCATAAAATATTATATNTATTTAATTATATTAATCTTCGTC
AGCTTTAATTGCTCTTCTTTAAATTTGATCTGAAAT

Sequence 1168

CCGCGGTGGCGGCCGAGGTACCCTTGTCCTCTTCTCAGTGACTTAAACAATTCCAGGA
TCAGAAGAGAAGCCAACGTGACATCCTCGATAAACTGGGGATAAGCTGAAGTTCTGTCT
GTTACGAAGTGGTTGAAAAACAATTCGAGATCCAGAAGTCCCTTGATGGGTTCCACCAT
CCAGGTGTTCAAAAAAATCAGAGAATCTTTTNNAGGGGGTGGNCGCNTTAACCTTTTN
NGGTTNANTGAAATCCCCCCCCCTGNTTTTTTTTGGAGAGGTTNAAAAATTTTTTTTNA
AAAAAAACCCCCCCCCCNNGGNATTNTNANTTTTTTTTTTNNNNNCCCCNNCAAAATTT
TTTTTTAACCCCCCCCCNAAAAAAAAGGGTTTTTTTTTTTAAAAAACCCNCNGN
TCNCCNCCNCCANAAAAAAAANGGGGGTCCCNTTTTTTTTTTNTNNCCCCNNGGN
TTTTTTTTTTTTNTTCTNNNNNNGGGGGGGGGGAAAAAAAANAATTTTTTTTTT
TGGNNGGGGGGGNNGCNCCCCNCCCCCNGGGGGGGGNGGNTTAAAAAAAANGNCCCC
CCNGGGGGGGGAAANNANTTTTANTNNNTCCCCCCCCCNGGGGGGGGGG

Sequence 1169

CCGCGGTGGCGGCCGCCGCGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAATAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGA

TABLE 1

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GAGGGGTTTGGAGTCTGGAAGCCTCATCNCTTCAGCATCAACTGGAATGG

Sequence 1170

CCGCGGTGGCGGCCCGCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAAGAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCCCTCAGGAGCTGAATGAAAAAATGCAACAAGCANATGAAGACTCTGA
GAGGGGTTTG

Sequence 1171

GNGGCGGCCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGG
GTGTAAAAATAAACCAGAAATCAAGGGAGAAAAGAAAGATGAAAGACAACTGCAAAAAA
TTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCAT
TCCTTCAGGAGCTGAATGAAAAAATGCAACA

Sequence 1172

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACCATCTAGGTCAG
TTTAAGAAGAGTCAGCTCAGAGAAAGCAAGCATAAGGGAAAATGTCACGTAACTAGATC
AGGGAACAAAATCCTCTCCTTGTGGAAATATCCCATGCAGTTTGTTGATACAACTTAGTA
TCTTATTGCCTAAAAAAAATTTCTTATCATTGTTCAAAAAAGCAAAATCATGGAAAATT
TTTGTGTCCAGGCAAAATAAAGGTCATTTTAATTTAGCTGCAATTTTCAGTGTTCCCTCAC
TAGGTGGCATTAAATGTGCGCTGATGTCAATTAAGCACCATCCAAAAAGTCTGCTTCATA
ATCTATTTTCAAGACTTGGTGATTCTGAAAGTTTTGGTTTTTGTGACTTTGTTTCTCAGG
AAAAAAAATATTCTACTTAAATTTTAAAGTCTATAATTCAATTTAAATATGTGTGTGTCT
CATCCAGGATAGGATAGGTTGTCTTCTATTTTCCATTTTACCTATTTACTTTTTTTGTAA
GAAAAGGAGAAAAATGAATTTCTAAAGATGGTCCCCATG

Sequence 1173

AGGTACCGCTGTGTCCGGGTGGGTGGTCAGAATGCCGTGCTCCAGGTGTTACAGCTGCT
TCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGCCTGTGCC
CAACTGGGTTTTCCCAAGCTATGTGAGTTCAGATAACCTCAGAGTGAGCTCGCTGGAGGGG
CAGTTCCGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTGACTGCA
TTACACCACTCAGTATATGTGAGGGAGGGATGTGCCTCTGGCCACGTGGTTACCTTGCA
TGCACAGCCTGTGGTCATAGAAGGGGCTACAGCTCACGCATCGTGGGTGGAACATGTCC
TTGCTCTCGCAGTGGCCCTGGCAGGCCAGCCTTCAGTTCCAGGGCTACCACCTGTGCGGG
GGCTCTGTATCACGCCCTGTGGATCGTCACTGCTGCACACTGTGTTTATGACTTGTA
CTGCCCCG

Sequence 1174

AGGTACCGCTGTGTCCGGGTGGGTGGTCAGAATGCCGTGCTCNAGGTGTTACAGCTGCT
TCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGCCTGTGCC
CAACTGGGTTTTCCCAAGCTATGTGAGTTCAGATAACCTCAGAGTGAGCTCGCTGGAGGGG
CAGTTCCGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTGACTGCA
TTACACCACTCAGTATATGTGAGGGAGGGATGTGCCTCTGGCCACGTGGTTACCTTGCA
TGCACAGCCTGTGGTCATAGAAGGGGCTACAGCTCACGCATCGTGGGTGGAACATGTCC
TTGCTCTCGCAGTGGCCCTGGCAGGCCAGCCTTCAGTTCCAGGGCTACCACCTGTGCGGG
GGCTCTGTATCACGCCCTGTGGATCGTCACTGCNTGCACACTGTGTTTATGACTTGTA
CCTGCCCCG

Sequence 1175

AGGTACCGCTGTGTCCGGGTGGGTGGTCAGAATGCCGTGCTNNAGGTGTTACAGCTGCT
TCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGCCTGTGCC
CAACTGGGTTTTCCCAAGCTATGTGAGTTCAGATAACCTCAGAGTGAGCTCGCTGGAGGGG
CAGTTCCGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTGACTGCA
TTACACCACTCAGTATATGTGAGGGAGGGATGTGCCTCTGGCCACGTGGTTACCTTGCA
TGCACAGCCTGTGGTCATAGAAGGGGCTACAGCTCACGCATCGTGGGTGGAACATGTCC
TTGCTCTCGCAGTGGCCCTGGCAGGCCAGCCTTCAGTTCCAGGGCTACCACCTGTGCGGG

TABLE 1

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GGCTCTGTCATCACGCCCCCTGTGGATCGTCACTGNTGCACACTGTGTTTATGACTTGTAC
CTGCCCCG

Sequence 1176

CCGGGCAGGTACAACAAGCGTTTGTAAATGTTTCCCAAANATTAGCTTTGAAATCCAAATG
TCAAGCAATTAAAGTTCAAAAACTATAAATGTAATTGTTAATAAAACAATGGATGAAAA
AAGTCATTGAAATTTTTCTACTTGGATTAAGAACATAAATTAAAAGTGCAACTGCAAA
AATAATATTAGTTTGATAAGTAAAATAAAACAACTAGATATATTTTGAAAATAAAAAAC
AAATGAAACAAAATAAAATTTAGGTAAAGAAAATTCAACGTAATTTGTTGTAGCTATATT
TTTTGTAATAATTACAAAAGTAGAAATAATAGCTCATAAAGCAAAAACAAAATTTATTCT
ATGTTCTTTTTTTCAGTCAATTCAGAATTTTAGCTTCATATTTGAAGCATTTTTTCTAA
TTTTGTTTGTGAATTTGAATTTGTTTGGGATTTNGATTTGCCATAAAAATATTATATT
TATTTAATTATATTAATCTTCGTCAAGCTTTAATTGCTCTTTCTTTAACAATTTGATCTGA
AATTTGTTTTGGTGTTATTTCATAGTGATCAAATTGCATTTGATAAGTTCCACGACCTGA
TGTCATAGACCTTAATTGTGTGAGTATCCAAACATTTT

Sequence 1177

TAGGGCGAATTGGACTCCACCGCGGTGGCGGCCGCCCGGGCAGGTACCTACGGAAATCCT
AACTACCACTGGCAGGAACTGCATATNTTCTGGTTTACATGAAGANGGAGGGGCTAANGG
AAATGCCCAAACCTTCAGAGATTGACACCGCTGTCATTNTCCATNTCNGTTCTGGAAT
CTACCGGGGAGTNTTATAAGAAGANTTTTGCAAATNGAGGGAAGAAGCAATTGTTTTCAA
ACTATATAACTGGAGNCCTTAATTTATAATTAGGGGATATTTAATCAAAAATATNGTAAA
CCATGGAGGGCCCCCTCAGNGTNTCGGATCAGGTTCAAGAAATNGAAATGNTTTTACCCC
AAGNCANGACCCCGGCCATGTGGGCATGNTCCGGGTNCCTGGGGGTGGCNTCGNCTGGCT
TGTGGCGAANGAACAATTAAGCCCCTTTTAAGTTTATTGAAGCCCTGNGGGGAAACTTTA
AGGGGGTTTTCCANAGTTGGGGGANGAAGCANTNGGNNAGTTGGNGAAGGGCATTTTGGGG
GGG

Sequence 1178

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGC
CATCCACCACCTTTATAGAGGGTGTAATAATAAACCAGAAATCAAGGGAGAAAAGAAAGAT
GAAAGACAACTGCAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGA
GGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGA
AGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGG
GGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCC
TCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAGATTGGACTAAGAC
ACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAATTGCT

Sequence 1179

CCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAATAATAAACCAGAAATCAAGGGAGAAAAGAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAATGCGACTTTNTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGA
GAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAG
AATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAG
TTGGTATTCAAAATATGTAATGACTGGTATGGCAAAGATTGGACTAAGACACTGGCCAT
ACCACTGGACAGG

Sequence 1180

CCGCGGTGGCGGCCGCCCGGGCAGGTACCTATTGCCAGGAAGATAGGCAGCTCATCTGTG
TCCTGTGTCCAGTCATTGGGGCTCACCAGGGCANNCCAACCTCTCCACCCTAGACGAAGCCT
TTGAAGAATTAAGAAGCAAAGACTCAGGTGGACTGAAGGCCGCTATGATCGAATTGGTGG
AAAGGTTGAAGTTCAAGAGCTCAGACCCTAAAGTAACTCGGGACCAAATGAAGATGTTTA
TACAGCAGGAATTTAAGAAAGTTCAGAAAGTGATTGCTGATGAGGAGCAGAAGGCCCTTC
ATCTAGTGACATCCAAGAGGCAATGACCACAGCTCATGTGACTGAGATACTGGCAGACA
TCCAATCCCACATGGATAGGTTGATGACTCAAATGGCCCAAGCCAAG

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Sequence 1181

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGG
CCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGA
TGAAAGACAAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTG
AGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATG
AAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATG
GGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTC
CTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGA
CACTGGCCATACCACTGGACAGGGTTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGA
GCCCAAGGAGTTCTGGGAGAGGGACCCAGATTGGGGGGGTA

Sequence 1182

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTACCAAATGAAGTGTGAA
GACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAA
GAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCA
GATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAA
GCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGC
TGGAATGGGGAATGAAGAATAGNAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGC
TGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTG
GACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAA

Sequence 1183

TCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAA
GACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAA
GAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCA
GATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAA
GCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGC
TGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCT
GAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGG
ACTAAGACACTGGCCATACCACTGGACAGGGTTTATGTTAACACCTGAATTGCTGGGTCT
TGAGAGAGCCCAAGGAGTTCTGGGAGAGGGACCAAGATTGGGGGGTAGGTCCCGGGCTTGG
TGATAGAAATATTTCTCGATGACTTTCTTGAGTGCAATTTGNACTGTAACATTTGCTTAA
TCACCTT

Sequence 1184

ATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGATAGTCATCTCAGTAAAAGGTCTAT
TATCTAACTTGCCAACTTGTTTACTGAGAGCCCTAAGGAACTAAACNGCCATAATGCC
GTGCACAGNTTGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTCTCCCTCCAGTTTN
CTCAAGCAGGCCTGGCTGAAGGCCAGGAGGGAAGGAAATATAAGAACCAACAATAAAAA
TAGCAATAGCAATAAGAAGAATGCCATCCCATGGAGCACACCATAATTCTGGAACCACCT
NTCCCGGATCAGGCTTCCATTGCTCACGATGCTCACGCTGGGCAGCCGCAACTNTACTTT
GCAGAACCTCACCAACTTGCCCAGGTNTTCTCCCGGTCTTGAAGAAATGGCTCTCCACC
TGAAAAGTNNGATCTTCTCCATACCAGCTTCTTAAGCAAAAGCAATCCTCTCTTTGCTTC
CTCAAGGGGCA

Sequence 1185

TAGGGCGANTTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAA
GGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAA
GATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTC
TGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGA
TGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCNTTCAGCATCAAGCTGGAA
TGGGGAATGAANAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAAT
TCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATG

Sequence 1186

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGG

TABLE 1
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CCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAAGA
TGAAAGACAAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTG
AGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATG
AAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATG
GGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTC
CTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGA
CACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAG
CCCAAGGGAGTTCTGGGAGAGGGACCAGATTGGGGGGTA

Sequence 1187

CCGCGGTGGCGGCCGCGCCGCGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGCTTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGA
GAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAAATGAAG
AATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAG
TTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCAT
ACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAGT
TCTGGGAGAGGGACCAGATTGGGG

Sequence 1188

CCGCGGTGGCGGCCGAGGTACAAGATANTCATCTCAGTAAAAGGTCTATTATCTAACTTG
CCAAACTTGTCTTACTGAGAGCCCTAAGGAACTAAACTGCCATAATGCCGTGCACAGCTT
GAAAAGCAATTAGAGTAAGCAAGATTAGTTTTCTCCCTTTCNAAGTCTCAGCAGGCC
TGGCTGAAGGCCAGGAGGGAAAGAAATATAAGAACCAACAATAAAAAATAGCAATAGCAA
TAAGAAGAATGCCATCCCATGGAGCACACCATAATTCTGGAACCACTCTCCCGGATCAG
GCTTCCATTGCTCACGATGCTCACGCTGGGCAGNCGCAACTCTACTTTGCAGAACCTCAC
CAACTTGCCAGGTATTCTCCCCGGT

Sequence 1189

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGCGGCAGGTACCAAATGAAG
TGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGG
GAGGAAGAAAAGATGAAAGACAAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAAT
GGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATG
CAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCA
TCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAG
GGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAA
AGAATTGACTAAAACACTGGCCATACCACTGGACAG

Sequence 1190

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGCGGCAGGTACATGGCGAAGCTAGA
GACTGTAACCTGAAGATTGGGACAAATTAAGAAAAAAATGTGATTAAACACAATTACAA
AACTGTTACGTTAGGGTCAAACAAGAACCATTATGAACTGAATTACAACAAATGAC
ATTATATCTAACTCTTCCGGGTCTCCACAACACTTATACTTACTTAAGCAGCTTAAACAC
TTCCGAGTCTCCACAGCACTCTGATACTTACTTAACAGCTCTTTAACCTGCCCTAGTA
TTCTTAAGTGCAGCATATCTAATTTTTTTTTCTCAAGTAGTTTGAA

Sequence 1191

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGCGNCAGGTACCAAATGAACGTGT
GAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAG
AAAGAAAAGATGAAAGACAAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGA
GCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAA
CAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCA
AGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGA
GCTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGAT
TGGACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAA

TABLE 1
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Sequence 1192

CGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGAAGAC
AAGGCCNTCCACCACTTTATAGAGGGTGNAAAAATAAACCAGAAATNAAGGGAGAAAGAA
AAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCANAT
TCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCC
GATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGG
AATGGGGAATGAAGAATAGAGA

Sequence 1193

TGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAG
GCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAG
ATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCT
GAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGGAAAAATGCAACAAGCAGAT
GAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAAT
GGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATT
CCTCCACCAAGTTGGTATTCAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAG
ACACTGGCCATACCACTGGACAG

Sequence 1194

NGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACATAAATCACCTGGAACCTTG
TTAAATGCAGATCCTGACTCAGGAGGTCTGAGTTAGAGCCAGGATTNCATATTTCTAG
CCAGCTCCATGATGAGCTGCTGGTCCGCAGATCATGCTTGCNGGTTTTGACCAGAGTCAG
TGTTGGTTANAGTAAGAGGATGAGGCANACATNTGGGAAAAGTCCAGCTGGGGCAAGCAT
TTGAAGTCTGCCTTCTACCANGTCAAAATCAAGGCAACGACCTTCCATAGATAACTATC
AAAGCTTGAGGGGGNGCCTTGAACCCAACCTCTAAATCCCTAAGACCTGCCACCTCTTG
TGTCCTGTNTNAGCAAACATTTCCACACTCTTGCAATTTGTTAAAAGTAACCTCTGCT
TACCAGGCTTTTG

Sequence 1195

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGGGGGTGTCCGAACAAGGCAGGTTG
GTGGGTTAAGGTCTTAATCTTGACTCGAGATCTCTCTCCGGAGTTCACAGNGTNGGCGAC
GAAGCCGAAGCAGCTGGAGCGCGACCCGAGGAGTCTGACTTCTCGTTGTCTTCATAATT
TTCAATTCGTTGCTTTCTTCGTGGACTTGCGGCTGGGGGAGGATCCCCGCTGGTCGCCGAG
CAGGCGGGCGGGTAAAGGTAGGCCGCCGAGAGCGAGGTTAGGAGAGGAGAGGAGGCCGCA
GTACCT

Sequence 1196

ATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGAGGAGGCGGAAGCGC
AGCGGGGGCGGGAAGGTTGTAGTGCCGCGAGTTGAGCTCCTCTTGCTAAGTGGTCGCGC
CCCCTTTAAGAGCAGCGATTGTAAGGAGAGGCGGTCCCGGTGTCTCGGGTCCCAGGTGA
TTGTGAAGTGCTGACCAATTGCCACTGGACATACTTGAACAAAATAGGAAAATGGCAGC
AAACCCTGTCTCTAAATCAATCAATCAAGCGAGCCAGAATGCAGTAGTGGCCTGAGAGAG
GCATCCTGGAACGCAGTGCGGTCTGGCTAGGCTTAGAAGTATTCATGTGATTTTTACCTG
ACAAGGG

Sequence 1197

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGA
AGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAA
AGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGC
AGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACA
AGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAG
CTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGG

Sequence 1198

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGAGAGCG
AGCTTCGGAGAAGCAGTGGTGGGTTCCATGTGGTGGTGGAGTAGGAGGCAGGTCTCCGCG
GTGGTTTCCACAAGAAAAATGGCACAATGTTTCTCAGAAGACAATTACATAAGAATCAGC

TABLE 1
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ATACTTTAAATTCACAGCAAATAATCAGACAATTGATGAAAATACTTACCCAAACACTAA
TTGTAGACTGTGCCTTCTGAATATGTTTTGTCATAAACTTGGAGTAAGGAATCCTCACAG
GCACTGGACAATTCAAAAAACGTAAAGTTTGTGTTAGAATACCTGGGTGCTTTTGGAT
AGAAACCCTCATCCATATCCTGGTAAGGCTTGAAGTTGCACAGGAGTTTTCATTTGTCAA
AACCAGAAAACCATAAGCTTTAGATTTGGG

Sequence 1199

CCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAATAAACCAGAAATCAAGGGAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAATGCGACTTTNTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTTTGA
GAGGGTTTGGAGTCTGGAACCNATCCTTTACNTTCAACTTGAAATGGGGAATGAA

Sequence 1200

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAANTGAAGTGTGAAGACAAG
GCCATCCACCCTTTATAGAGGGTGTAATAAACCATAAATCAAGGGAGAAAGAAAAG
ATGAAAGACAACTGCAAAAAATTGCCAAATGCNGACTTTCTAAAAATGGAGCAGANTC
TGAGGCTTTGCATGTCTTGGCATTCTCAAGAGCTGAATGAAAAATGCAACANGCAGAT
GAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCNTTCAGCATCAAGCTGGAAT
GGGGAATGAAGAATATAGATGTGGTGCCCACTAGGNTNCTGCTGAAAGGGAGNTGAAATT
CCTCCACCAAGTNGGTATTCAAATA

Sequence 1201

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCACGGTACGCGGGGGTAAAC
TGAAAAATCCACAAGACAGAATAGCCAGATCTCAGAGGAGCCTGGCTAAGCAAAACCCTGC
AGAACGGCTGCCTAATTTACAGCAACCATGAGGCCACTTAAGGATGCAGCAAGAAGGAGC
CATCTGCAATCCAGGAAGAAATTCCTTGCCAGGAACCAAAATTGGTTGTCACCTTCATCTA
GGACTTCTAGCCTCGAGAACTTACAAATGGTGATGATCAT

Sequence 1202

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGAC
AAGGCCATCCACCCTTTATAGAGGGTGTAATAAACCATAAANNAAGGGAGAAAAGAA
AAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCANAT
TCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCA
NATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGG
AATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAA
ATTCTCCACCAAGTTGGTATTCAAATATGTAATGACTGGTATGGCAAAAAAG

Sequence 1203

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACAATATAAAATAATA
CATATGAAGCCACAATATTCAATTACAGTTCAAAGTAACTAGAAATTACTAATCATGTAGCT
GCTTCATTTTTCGTTTTGCATTTTGGCCCTAATTCATTTTACAAGTATACCTGCTGA
GAAAAAGATCCAACTTTTAACTTTGTATGTTTTGTGGAGGGTGCACAATTTCTTCTAA
TATATCTTCAGGTGTTTTAAATTTAATTTGTTTTAATCATAAGATATCATCATGGCCA
AGAGACTGGGAAAATAACAATTTTATTCTTTCTCCTAAGATTGNGATTTTATTATTCCAA
GATCTTATGCTTGAATTACTTAGCAAGAAGGCATGATTATGCANAAGACAGGGAAATGAA
GAGAAAAGAGCGGGAATATACGAAAATGAAGCTTCTTAACAGAGTTCATGGTGGAGATG
GTAGACACTGGTGGAGTTTTTTCCAGACTTAA

Sequence 1204

TCGAGCGGCCGCCGGGCAGGTACACTCTAAAGAAAGCCATGAGGATGATAATCCACTTT
GATACTTCCAATCTGCTGGTCTTGCTGAACTCTTTGGATCATGGATATCATAAGTTGAC
AAAATATTTTTTTGTAGAAGCACAAATGTGAAGNGTCACTCGTTCTGAGACTTCCTCCT
CTGTGAAATTCACAATCTCTTTCTATTTATAGACTTTTCCACAGCAAACATTAGTCTAC
GCAGAGCATTTTGAAAATCATTTGCCAGTTCTAAAGTAGTAATAATAAATACTCCAAGAA
CTAAAAGTCCCCCTGGTAGCATTCTGGATACCTGGCAGGCATGTTCTGTGGCCCATTC

Sequence 1205

TABLE 1
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NNGNCCTTTTCGAGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCC
ACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAG
ACAACTGTAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTT
TGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACT
CTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAAT
GAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAAT

Sequence 1206

AGCGTGGTCGCGGCCGAGGTACATAAAACATTATTCTTCTTGGCCTAAAACTCATCG
CCACCTACATTAAAGCTAATATGCCTGATTACTGTTTTAGAGAAGCTATTTTATTAGGG
CAGTTCCAAGCTCAAAAAATACGCTAACTGGCACCTTGNTAGCTACATAAAATGCACCT
AGACCCGAAACTTACTAGACTCATTATAAAATTTTCTTTAAGGTGTCCACGCAGTCCCTG
GTCACACTTGAAGCAGTCCGGAGAAATATCAGCCCTACCCAGTAATCCCCAGAAGGAAC
TTACACTTTTTTTAATCTTTTCTACAACCTTCATATTTTATAATA

Sequence 1207

CCCTTAGCGTGGTCGCGGCCGAGGTACCATCTAGGTCAAGTTAAGAAGAGTCAGCTCAGA
GAAAGCAAGCATAAGGGAAAATGTCACGTAACTAGATCAGGGAACAAAATCCTCTCCTT
GTGGAAATATCCCATGCAGTTTGTGATACAACCTAGTATCTTATTGCCTAAAAA
TTTCTTATCATTGTTTCAAAAAAGCAAAATCATGGAATTTTTGTTGTCCAGGCAAATA
AAAGGTCATTTTAATTAGCTGCAATTCAGTGTTCCTCACTAGGTGGCATTAAATGTC
GCCTGATGTCATTAAAGCACCATCCAAAAAGTCTGCTTCATAATCTATTTTCAAGACTTGG
TGATTCTGAAAGTTTTGGTTTTGTGACTTTGTTTCTCAGGAAAAAATATTCTACTTA
AATTTAAGTCTATAATTCAATTTAATATGTGTGTCTCATCCAGGATAGGATAGGGT
TGTCTTCTATTTTCCATTTTACCTAT

Sequence 1208

CCCTTTCGAGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCAC
CACTTTATAGAGGGTGTAAAAATAAACAGANATCAAGGGAGAAAGAAAAGATGAAAGAC
AACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCANATTCTGAGGCTTTG
CATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCANATGAAGACTCT
GAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGA
AGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCA
AGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGG

Sequence 1209

AGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATA
AACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGNCAAAATG
CGACTTTNTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAG
CTGAATGAAAAATGCAACAAGCAGATGAAGACTNTGAGAGGGGTTTGGAGTCTGGAAGC
CTCATCCCTTNAGCATCAAGCTGGAATGGGAANGAAGAATAGAGATGTGGTGCCCACTA
GGCTACTGCTGAAAGGGAGCTGAAATNTCTTCCACCCAAGTTGGTATTTCAAAATATGT
NATTGACTGGATANGGGCAAAAGGATTTGGAATAAGCACTGGGC

Sequence 1210

GCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAACGGCCATCCACCACTTTATAG
ACGGGTGTAAAAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAA
AAATTTGCCAAATGCGACTTTCTAAAAATGGAGCATAATTCTGAGGCTTTGCATGTCTT
GGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCNGATGAAGACTCTGAGAGGGG
TTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGA
GATGTGGNGCCCACTAG

Sequence 1211

CGGAAANTTGGGGGGCCCCCTTNCTTAAGAAAAGGCCATTGGCTTNCCGAAGGCGGGGGC
CCCGCCCCAAGTTGGTTGGAANTGGGGGATTATTNCTTTGGCCAAGAAAANTTTCCGGGG
GGNGTTTTNAAGGGNGGGGGGGGGGGCCCCCGGGCCCCCAAAAGGGGTNAACCCCCC
TGGGGGNAANAGGGGGGGGAAANNTTNNNAAACCGGNNAAAAACCCCCCAGGGGGGG

TABLE 1

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CCCCCGGGGGGGGAAAAANCCCCNNGGGGGGAAACCCCCCGG

Sequence 1212

GACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGT
GAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAATAAACCAGAAATCAAGGGAG
AAAGAAAAGATGAAAGACAACTGCAAAAATTGCCAAATGCGACTTTCTAAAAATGGA
GCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAA
CAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCA
AGCTGGAATGGGGAATGAAGAATAGAAGATGGTGGTGGCCACTAGGCTACTGCTGAAAGG
GAGCTGAAATTCCTCCCCAAGGTTGGGTATTCAAAATATGTAATGACTGGGTATGGCAA
AGATTGGACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAATTGCT
GGGCTTGAGAGAGCCCAAAGGAGTTCTGGGAGAGGGACCAGATGGGGGGGTA

Sequence 1213

CCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATA
GAGGGTGTAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAA
AAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTG
GCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGT
TTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAG
ATGTGGTGGCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTAT
TCAAATATGTAATGACTGGTATGGCAAAGATTGGACTAAGACACTGGCCATACCACTG
G

Sequence 1214

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTACCAAATGAAG
TGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAATAAACCAGAAATCAAGG
GAGAAAGAAAAGATGAAAGACAACTGCAAAAATTGTCAAATGCGACTTTCTAAAAAT
GGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATG
CAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCA
TCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGGCCACTAGGCTACTGCTGAAAG
GGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAA
GATTGGACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAAT

Sequence 1215

TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGA
CAAGGCCATCCACCACTTTATAGAGGGTGTAATAAACCAGAAATCAAGGGAGAAAGA
AAAGATGAAAGACAACTGCAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGA
TTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGC
AGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTG
GAATGGGGAATGAAGAATAGAGATGTGGTGGCCACTAGGCTACTGCTGAAAGGGAGCTGA
AATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAA

Sequence 1216

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTG
AAGACAAGGCCATCCACCACTTTATAGAGGGTGTAATAAACCAGAAATCAAGGGAGA
AAGAAAAGATGAAAGACAACTGCAAAAATTGCCAAATGCGACCTTCTAAAAATGGAG
CAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAAC
AAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAA
GCTGGAATGGGGAATGAAGAATAGAAGATTGTGGTGGCCACTAGGCTACTGCTGAAAGGG
AGCTGAAATTCCTCCCCAAGGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGA
TTGGACTAAGACACTGGCCATACCACTGNCAGGGTTATGTTAACACCTGAATTGCTGGGT
CTTGAGAGAGCCNAAGGAGTTCTGGGAGAGGGACCAGATGGGGG

Sequence 1217

CCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATA
GAGGGTGTAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAA
AAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTG

TABLE 1

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GCATTCCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGT
TTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAG
ATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCCCAAGTTGGTATT
CAAAATATGTAATGACTGGTATGGCAAAAGATTGGAATAAGACACTGGCCATACCACTGG
CAGGGTTATGTTA

Sequence 1218

CCGCGGTGGCGGCCGAGGTACTTCTTACAGTCTTCAGGAAATTCATTAAATCAGTGCCTC
CAGTTCCTTTGGCTTCCAGTTTTGAAGGGTCTTCAGAGGTCTTATTCTCCTTTGGCTGCT
GGCTTGCAAGGAATCAGGATGTACTGTTCTGTTGGCCGAGTGGAGACTGGNGTTCTCAA
CCCGGNATGGTGGTCACCTTTGCTCCAGTCAACGTTACAACGGAAGTAAATCTGTGCGAA
ATGCACCATGAAGCTTTGAGTGAAGCTTCTCCTGGGGACAATGTGGGCTTCAATGTCAAG
AATGTGTCTGTCAAGGATGTTGCTCGGGGCAACNTTGCTGGTGACAGCAAAAATGACCCA
CCAATGGAAGCAGCTGGCTTCACTGCTCAGGGTGATTATC

Sequence 1219

CCGCGGTGGCGGCCGCCCCGGGCAGGTACCCTGATGCTACAGACGAGGACATCACCTCACA
CATGGAAGCGAGGAGTTGAATGGTGCATACAAGGCCATCCCCGTTGCCAGGACCTGAA
CGCGCCTTNTGATTGGGACAGCCGTGGGAAGGACAGTTATGAAACGAGTCAGCTGGATGA
CCAGAGTGCTGAAACCCACAGCCACAAGCAGTNCAGATTATATAAGCNGGAAAGCTTATT
GATTANAAGCAATGNGCNTTTCCGATNTGATTGATNNGTNAAGNAACTTTTTNAAANGTN
ANCCCTGAATTNCCNNNACCCAATTAAATTTTTNCNANCCCCCTTTAAAAAATTTTNCNTNG
GGNTGGGGCCCCCCCCNAAAANTTAGGGNANAAAAAATATNAAANCCCCCNAAAATATTTT
NNNTTNTTTTCTAAAAAATAAAAAACCCNCCNTTTTTTGGGGGGGGCATTTAAAAGG
GGGAAAAAAATTCGAATTTTTNCCCTTTTNTTTTANCCNAAAAAAAAAAAAAT

Sequence 1220

CCGCGGTGGCGGCCGAGGTACATTGGCACGTCACGATGTCTTGAGTTTCATTCACTAGGT
GGCAGCCTGCATCGTTCCACTGCAAATGACTGAAATCCCAAAACACACAATGAGGCTGGC
TCAGGTTTGACTCTATCTTGGAATAAATAGGAAACTTCATTTATGGAATAGTTTTGAA
TAACCGTGGATATCACAGGTCCATTGACCTGAGCATTTCATTTTGGAAACGGGTAGAA
TGTTCCCCAGAGTCAACGAGGCCATGCTGATAATAGTTTCTGGAAGGGATCTCTGGAATT
GGTCTGACCCAATTAACACACGGCCTCTGATGGGAATAGATGTATTTTGGGGACACATTT
TAATCTGATAGCTGTAACCCCTTTTGAAGTTGGCTTTTGTCACTGGAATCCCTTTCCAGT
CA

Sequence 1221

ATAGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACA
AGGCCATCCACCACTTTATAGAGGGTGTAATAATAAACAGAAATCAAGGGAGAAAGAAA
AGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATT
CTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAG
ATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGA
ATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAA
TTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGGTATGGCAAAAGATTGGACT
AAGACACTGGCCATACC

Sequence 1222

CCGCGGTGGCGGCCGCCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAATAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGCTTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAGGCAGATGAAGACTCTGA
GAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAG
AATGNAGATGGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCCCAAGG
TTGGGTATTCAAAATATGTAATGACTGGGTATGGCAAAAGATTGGGACTAAGACAC

Sequence 1223

CGACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACCAA

TABLE 1
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TGAANGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCCAGAAA
TCAAGGGAGAAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCT
AAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCNTTCCTTCAGGAGCTGAATGAA
AAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCT
TCAGCATCAAGCTGGGAATGGGGG

Sequence 1224

CCGCGGTGGCGGCCGCCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAAAAATAAACCCAGAAAATCAAGGGAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGA
GAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAG
AATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAG
TTGGTATTCAATATGTAATGACTGGTATGGCAAAAGATTGGAATAAGACACTGGCCATAC
CACTGGACAGGGTTATGTTAACACCTGGAATTGCTGGGTCTTGAGAGAGCCCAANGGAGT
TCTGGGGAGAGGGGACCAGATTGGGG

Sequence 1225

CCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATA
GAGGGTGTAAAAATAAACCCAGAAAATCAAGGGAGAAAAGATGAAAGACAACTGCAA
AAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTG
GCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGT
TTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAACAGAA
GATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGGTTGGG
TATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGGACTAAAGACACTGGCCATAC
CACTGGACAGGGTTTATGTTAACACCTGAANTGCTGGGGTCTTGAGAGAGCCCAANGAGT
TTNGGAGAGGGCCAGATGGGGGGGTAG

Sequence 1226

AGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATA
AACCCAGAAAATCAAGGGAGAAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATG
CGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAG
CTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGC
CTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAAGATGTGGTGCCCACT
AGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAAT
GACTGGTATGGCAAAAGATTGGAATAAGACACTGGCCATACCACTGGACAGGGTTATGTT
AACACCTGAATTGCTGG

Sequence 1227

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCCAGGAAGTGAAGTAAAA
CCTGGTCTTGGTTGATAGGCCCCAGGTTGGCTTGGAGCCATTCCAGGTTGAGAGGCAGGA
GCCACAGTATAATTAGTAGGCTGAGAAGTTTGGGCAGTGTAAGTTTGTGCAGGATAATTG
CTCGCCTGGTACTCTTGGAAGTCCACCTCGTTGTCCCTGTTGCTGTCCAAGTTGCTCATC
AGCTTCTGGAAAGCAGCTTCACCTGTCTTTTCCCCAAGAAGCTGGGCAGCTCCCGGGTC
AGCAGCTCCTTTAGTTCTGACTTGTTGAGCTTGAACCTGTCACCCTCTTTGCCCGAGTAC
CTGCCCC

Sequence 1228

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGA
AGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCCAGAAAATCAAGGGAGAA
AGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGC
AGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACA
AGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAG
CTGGAATGGGGAATGAAGAATAGAAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAG
CTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGGTATGGCAAAAGAT
TGGACTAAGACACTGGCCATACCACTGNCAGGGTTATGTTAACACCTGAATTGCTGGGTCT

TABLE 1
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TTGAGAGAGCCCAAGGAGTTCTGGGAGAGGGACCAAATGGGGGG

Sequence 1229

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTG
AAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATNAACCAGAAATCAAGGGNGA
AAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAG
CAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAAC
AAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAA
GCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAG
CTGAAATTCCTCCACCAAGTTGGTATTCAAATATGTAATGACTGGTATGGCAAAAGATT
GGACT

Sequence 1230

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGGTCTTC
TAGTCCGGTAAACAGAGGGCCTGCCCCGACAGCTTCTGCTTCCGGGTACGCCTTGACA
GCGGCTTTCAACCCCACTCAGCCAGCAATTGTTTTGGAGCATGTGAACACCTTGAGC
CTTGATGAGTTCCAGTNTGTGGTATATTATGCAGNGCNTTCAGNGAAAATNCTTTTTNTN
CGGGNNTTNAANNAAAAAANANTNGGGTGCCATGNTNTTNNCCCCNNNNNTNGGGGGGG
GCCCCCTCAAANGGGGGGGGGNACTATNANNNNCCCTNTTTTTTGGGGNNCNANNTNN
ACNCCNTTTNNTTNGGGCCCCNTTTTTTGGGGGNAAAAAAACCCCCCTNNGGGGGGG
GTATTTTNTTTTTNNGAAAAAAAAGGCCCGGGGNGACCCCCCNGGTGGGNTTAN
ANAAAAAAAANTCNCCCNNTTNTTTTTTTTAAAA

Sequence 1231

AGGTACGCGGGGCTTTTCCGTGCTACCTGCAGAGGGGTCCATACGGCGTTGTTCTGGATT
CCCGTCGTAACCTAAAGGGAAATTTTACAATGTCCGGAGCCCTTGATGTCCTGCAATG
AAGGAGGAGGATGTCCTTAAGTTCCTTGACAGCAGGAACCCACTTAGGTGGCACCATTCTT
GACTTCCAGATGGAACAGTACTCTTGGAAGTCCACCTCGTTGTCCCTGTTGCTGTCCAAG
TTGCTCATCAGCTTCTGGAAGCAGCTTCATCTGTCTTTTCCCAAGAAGCTGGGCAGC
TCCCGGGTCAGCAGCTCCTTAGTTCTGACTTGTTGAGCTTGAACCTGTACCCTCTTTG
CCCGAGTACCTGCCCC

Sequence 1232

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGAAA
CAAAAAGGAACCAGAGGCCACTTGTATATATAGGTCTCTTCAGCATTTATTGGTGGCAGA
AGAGGAAGATTTCTGAAGAGTGCAGCTGCCTGAACCGAGCCCTGCCGAACAGCTGAGAAT
TGCACTGCAACCATGAGTGAGAACAATAAGAATTCCTTGAGAGCAGCCTACGGCAACTA
AATGCCATTTTACC

Sequence 1233

GCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAANTGAAGTGTGAAGACAAGGCC
ATCCACCACTTTATAGAGGGNGTAAAAATAAACCAGAAATCAAGGGAGAAAAGAAAGATG
AAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAG
GCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAA
GACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTNATCCCTTCAGCATCAAGCTGGAATGGG
GAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTNCT
CCCCAAGNTTGGTATTCAAATATGTAATGACTGNTATTGGCAAAA

Sequence 1234

GCNATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGAC
AAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAAGAA
AAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGA
TTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGC
AGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTG
GAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGA
AATTCCTNCCCAAGTTNGGTATTCAAATATGTAATTGCTGGTATGGCAAAAGATTGGACT
AAGACACTGGCCCTACCACTGGACAGGGGTTATTNTTAAACCCCTGAATTTGCTTGGGT

TABLE 1
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CTTTGAGAGAGCCCCAAGGGGGTTTTGGGAGAGGGGACCCANAATTGGGGGGTAGGTC
Sequence 1235

TGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGGCCATCCA
CCACTTTATAGAGGGTGTAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGA
CAAAGTGCAAAAAATTGCCAAATGCCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTT
TGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACT
CTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAAT
GAAGAATAGAAGATGTGGTGCCCACTAGGCTACTGCTTGAAAGG

Sequence 1236

TGGACTCCACGCGGTGGCGGCCGAGGNACAATACACTAGAAACCAACATAATGTATTTT
TTTTAAACCTGTGNGAAAAAATAAATGTTCCACNAGTAGGGATAGGGGAAAAGNAACCA
AAAGAGAGAAAGAGAAAGGAATGCTGGTTNATCTTTGTANGTNGTAATCGAATGGAGAAA
TTTGCAGTATTTTANCCACTATTAGNGAAATTTTTTTTTTTTTGTCAAATGANAGACT
GGAACCTCTGTTCAANATGCTTTNATTGNAACTCTGGTTTTGAAGACCGGGNNNGGNA
GCAANNAAAAACGTNGGAAACCTNNGATGGACNTAAAGGGGCNNTGGNNGCCAAAGGG
ACCTTGGGGGAAAANGGTCCACTTTGAATANANAAGCATGGGGNGGGGNGNATTTTTCC
CCCCCTTTTAAAAANATGGTNTGGAATAATTTTAAANNNGGNATATTAACCACCTTT
NTT

Sequence 1237

GGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTGTGATATCCACATAT
TTTCGATAAAAAATCCAAAGCCAGGCGAATGTGGATTGGAATAAAGACATAGGCAGTGTA
TACCACCATAGCAATAATGGTTAGTAAGATGGTGTTAAACATAGATCGCTCCCAGGGCTC
TAAACAGCACAGCAGCTAATGATTTGGTATTGATAGTAGAGCCAGGAGAAATATTCCTT
CACACGCCTCAAATCCATGGTTGGCTCCTTCAAGCTGCAGTAAGTTTGTCTAAGAAAGT
CCAGGTCTGGTTCTTCAGCCTTGCTCCTTCGCGAAATGATCCTGTGTGGGTTAGTCTCC
TCTCTGGGTTGCTGTTTCTCATCTCCAGTTGGGTGTATCTCCCTGCGGCTTAGGTGAG
CGCCGAGGCTTTGGC

Sequence 1238

AGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGA
AGACNNTGGCCATCCACCACTTTATAGAGGGTGTAATAAACCAGAAATCAAGGGAGA
AAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAG
CAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAAC
AAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAA
GCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAG
CTGAAATTCCTCCACCAAGTTGGGTATTCAAATATGTAATGACTGGTATGGCAAAAGAT
T

Sequence 1239

AGCTCCACCGCGGTGGCGGCCGAGGTACGCGGGGGCAGAAGAGGAAGATTTTTGAAGAG
TGCAGCTGCCTGAACCGAGCCCTGCCGAACAGCTGAGAATTGCACTGCAACCATGAGTGA
GAACAATAAGAATTCCTTGGAGAGCAGCCTACGGGNAACTAAAATGCCATTTACCTGGA
ACTTGATGGANGGGAGAAAACCTCTTGAATGATTTTGAAGACAAAAGTTATTTTTACC
CGGCACTGAAGATTTNCAGCAATCCGTTGGAATNTCAAAGGCCACCAAANGGTGCCAA
CNCCTACATGNGCNCCTATCNTAAANAGGCACCCCTCCAANAGGGGNCNAATAAACGNA
GGGNCNAAGNNNCCCTGGGNAATTTGGCCTTTACNGGNTAAAAAGGCCTTGGANNGGAG
GTTTTAAANTNCCTACGGCCAAAGGNAAGCCATTGGCNTGNACCCCAAGGGCCAAGGAAA
AATCCANNTAAAAAGNTTCTTGGGNGTCCACCCCTG

Sequence 1240

AGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGG
CCATCCACCACTTTATAGAGGGTGTAATAAACCAGAAATCAAGGGAGAAAGAAAAGA
TGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTG
AGGCTTTGCATGTCTTGGCATTCTTTTCAGGGAGCCTGAATTGAAAAA

TABLE 1
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Sequence 1241

AGCTCCCCGCGGTGGCGGCCGCCCGGGCNGGTACGCGGGGGAGACATTCCTCAATTGCTT
AGACATATTCTGAGCCTACAGCAGAGGAACCTCCAGTCTCAGCACCATGAATCAAACCTGC
CATTCTGATTTGCTGCCCTTATCTTTCTGACTCTAAGTGGCATTCAAGGAGTACGGGAAGG
CGAAGAAAAGAATAGAGAAGATAGGGAAATTAGAAGATAAAAACATACTTTTAGAAGAAA
AAAGATAAATTTAAACCTGAAAAGTAGGAAGCAGAAGAAAAAGACAAGCTAGGAAACAA
AAAAGCTTAAGGGGCAAAAATTGTACCTTCGGCCCCGCTCTAGAAGTGTGGGATCCCCCG
GGCTGCAG

Sequence 1242

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTG
AAGACATGGCCATCCACCACTTTATAGAGGGTGTAATAAATAAACAGAAATCAAGGGAGA
AAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCCGACTTTCTAAAAATGGA
GCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAA
CAAG

Sequence 1243

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGT
GTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAATAAATAAACAGAAATCAAGGG
AGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCCGACTTTCTAAAAATG
GAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGC
AACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCAT
CAAGCTGGAATGGGAATGAAGAATAGAGATGTGGTGCCCACTANGCTACTGCTGAAAGG

Sequence 1244

CCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATA
GAGGGTGTAATAAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAA
AAAATTGCCAAATGCCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTG
GCATTCCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGT
TTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAG
ATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCT.GAAATTCTCCACCAAGTTGGTAT
TCAAAATATGTAATGACTGGTATGGCAAAA

Sequence 1245

TGGTACTGCTAAAGTCATGACAGCCCAACAGGTGATGTTTTACTGGATGAAACTCTGAAA
CACATCAAAGCAACTGAACCCACAGAACTGTCCAAACATGGATAGAGCTACTCACTGGT
GAGACCTGGAACCCCTTCAAATTACAGTACTGTTCTGTTGGCCGAGTGGAGACTGGTGT
TCTCAAACCCGGTATGGNNGGTACCTTTGCTCCAGTCAACGTTACAACGGAAGTAAATC
TGTCGAAATGCACCATGAAGCTTTGAGTGAAGCTCTTCTGGGGACAATGTGGGCTTCAA
TGACAAGAATGTGTCTGTCAAGGATGTTCCGTCTGGCAACCGTTNCTGGTGACAGCAA
AATGACCCCAACAA

Sequence 1246

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGT
GTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAATAAATAAACAGAAATCAAGGG
AGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCCGACTTTCTAAAAATG
GAGCAGATTCTGAGGCTTTGCATGTCTTG

Sequence 1247

AGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTGA
AGACAAGGCCATCCACCACTTTATAGAGGGTGTAATAAATAAACAGAAATCAAGGGAGAA
AGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCCGACTTTCTAAAAATGGAGC
AGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACA
AGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAG
CTGGAATGGGGAATGAAGAATAGNAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAG
CTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATT

TABLE 1
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GGACTAAGACACTGGCCATACCACTGGACAGGGTTTATTGTTAACACCTGAATTGCTGGG
GTC

Sequence 1248

GAGCTCCCCGCGGTGGCGGCCGNGGTACATAAAACATTATTCCTTCCTTGGGCTAAAAAC
TTTTGCCACCTACATTAAAGCTAATATGCCTGNTTACTGTTTTAGAGAACTTATTTTA
TTAGGGCAGTTCCAAGCTCAAAAATACGCTAACTGGCACCTTGTTAGCTACATAAAAATG
CACCTAGACCCGAACTTACTAGACTCATTATAAAATTTTNTTTAAGGTGTCCACGCAG
NCCCTGGTCACACTTGAAGCAGTCCGGAGAAATATNAGCCCTACCCAGTAATCCCCAGA
AGGAACTTACACTTTTTTTTAATCTTTTCCTACAACCTNCATATTTTATAAATAAAAAGAC
ANAAATGTCAGGCCTGTGAGCTGAAGCTTAGCCAT

Sequence 1249

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGAGTGG
GAAGCTCGCAGCAGCTGGGGAGGAGCCAAAGCCTCGGCGCTCACCTAAGCCGCAGGGAGA
TACACCAACTGGGAGATGAGGAAACAGCAACCCAGAGAGGAGAACTAACCCACACAGGA
TCATTTCTGTAAGGAGCAAGGCTGAAGAACCAGACCTGGACTTCTTAGGACAACTTAC
TGCAGCTTGAAGGAGCCAACCATGGATTGAGGCGTGTGAAGGAATATTTCTCCTGGCTC
TACTATCAATAACCAATCATTAGCTGCTGCTGCTGTTTTAGAGCCCTGGGAGCCGATCTAT
GTTTAACGCCATCTTACTAACCATTATTGCTATGGTGGTATACACTGCCTATGTNTTTAT
TCCAATCCACATTGCGCTGGCTTGGGAATTTT

Sequence 1250

GGCNAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGC
CATCCACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAAAGAAAAGAT
GAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGA
GGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGA
AGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGG
GGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCC
TCCACCAAGTTGGTATTCAAAATNTGTAATGACTGGTATTGGCAAAA

Sequence 1251

CTNCTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAA
GACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAAA
GAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCA
GATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAA
GCAGATGAAGACTCTGAGAGGGGTTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAG
CTGGAATGGGGAATGAAGAATGGAAGAATNGTGGTGCCCACTAGGCTACTGCTGAAAGGG
GAGCTTGAAATTCCTCCACCAAGGTTTGGTATTCT

Sequence 1252

TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAATCTTGAGAAGGATT
GAAGGACAAGTTTGTGGCCCTGACCATAGATGATATCTGCTTCTCGCTCAACGACAACCTC
ACCAAACATCAGATATTCTGAGAACGCCGTGAGGATTGAGCCAACTCCGTGAGTCTGGA
AGACTGGTTGGACTTCTCCAGCACCAATGTGGAGAAGGCTGACAAGCAGCGGAACAACCTC
CCTGATGCTGAAAGCCCTGGTGGATCGAATCCTGTCCAGACAGCCAATGGATCTGTGCA
AGCCAGTGTGATTGTGGTGGACACCGGCAATCAAGAATGGGCCTGAAGGGATCAAAGGGA
TGCCAGGGACAAGCTGGGCTTGATCATCTGGCCCAAGGTATTNGGAAAGAGATTGCTTCC
CAGGGAAGAAAA

Sequence 1253

ACTNAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGAC
AAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAAAAGAA
AAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGA
TTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGC
AGATGAAGACTCTGAGAGGGGTTTNGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCT
GGAATGGGGAATGAAGAANGNAGATTGGTGGTGCCCACTAGGCTACTGCTGAAAGGGAG

TABLE 1
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CTGAAATTCCTCCCCAAGGTTGGTATTCAAAAATATTGTAATGAACTGGGTATTGGCAA

Sequence 1254

CCGCGGTGGCGGCCGNGGTACAATGATTGTCATCTCAGTAAAGGTCTATTATCTAACTT
GCCAAACTTGTCTTACTGAGAGCCCTAAGGAACTAAACTGCCATAATGCCGTGCACAGCT
TGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTCTCCCTTCCAGTTCCTCAGCAGGCC
TGGCTGAAGGCCCAGGAGGGAAGGAAATATAAGAACCAACAATAAAAATAGCAATAGCAA
TAAGAAGAATGCCATCCCATGGAGCACACCATAATTCTGGAACCACTCTCCCGGATCAG
GCTTCCATTGCTCACGATGCTCACGCTGGGCAGCCGCAACTCTACTTTCAGAACCTCAC
CAACTTGCCAGGTATTCTCCCCGGTCTTGA

Sequence 1255

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCATGGTACGCGGGGG
GGTGGAGAGAGGCCTCTAGACTTCAGTTTCAGTTTCCTGGCTCTGGGCAGCAGCAAGAAT
TCCTCTGCCTCCCATCCTACCATTCACTGTCTTGCCGGCAGCCAGCTGAGAGCAATGGGA
AATGGGGAGTCCCAGCTGTCTCGGTGCCTGCTCANAAGCTGGGTGGTTTATCCAGGAA
TACCTGAAGCCCTACGAAGAATGTCAGACACTGATCGACGAGATGGTGAACACCATCTGG
GACGTCTGCAGGAACCCGAACAGTTCCCCCTGGNGCANGGAGTGGCCATAGNGGGCTCC
TATGGACGGAAGAAAC

Sequence 1256

TGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAANGGCCATCCA
CCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGA
CAAAGTCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTT
TGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACT
CTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAAT
GAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCT

Sequence 1257

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACA
AGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAA
AGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGAT
TCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCA
GATGAAGACTCTGAGAGGGGTTTGGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTG
GAATGGGGAATGAAGAATAGAAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTG
AAA

Sequence 1258

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGT
GTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGG
AGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATG
GAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGC
AACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCA
TCAAGCTGGAATGGGGAATGAAGAATAGAAGATTGTGGTGCCCACTAGGCTACTGCTGAA
AGGGAGCCTGAAATTCCTCCCCAAGGTTGGGTATTCAAAAAATATGTAATGACTTGGTATG
GCAAAAAGATTGGGACTAAAG

Sequence 1259

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTCTTTGTTT
TGGCACACTTTTCTGACAAACAGCCAGTGTTCTCAATACATAAATACTAGTCCACGTTA
ACAACAATAGCATATGAGACCGCTCTCCGTAAAGATGCCAGATTGGATGCAAATGGACTG
GAAATACCTTGGAGGGTTTCAAAAAATAAGACAAAGGGCAAAGGAACTTTGCCAAAGGA
GATGGAGAGCAATTCTTTAAGATAGTGGGAGGGAGGAAGCAAAGAGCTCATAAATACAA
GCCTCTTAAATGGGACGCATTGCTCGCGCTCTGGGGTGTCTGCAGCTCAGCNTTGG
TGCCCCACACGGGACACCCGACTTTT

Sequence 1260

TABLE 1
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TAGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACCTTCAATGTCATT
AACCATAAATGAGCATTTACAATCTGGATTAAATGTCACATGGTATTAAGTCTACACTTA
GAGTAATGCTTTTACTGATTTTTAAAAATATATGCATATGTTTAGTGATCGAGAAAAAGTG
AAATACTGGAGTACTTTTTTTTTTTTTTTTTTTTGGCTTGATGAGTAGGTGAGTTTATT
GGGACTTACACACAGGTCAATCCTGGGCGGCGACAAGACAGCTCTAGAGATCTGAGCTTC
CTCCCAATGCTAAACTGCTTTCATGCTAATTTTCTGACTGTTTACTTACCCGGGGTAAGA
GCGATGGGGACTGTTTTCAATTGG

Sequence 1261

TNCTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACCAAATGAAGT
GTGAAGACAAGGCCATCCACCACCTTATAGAGGGTGTAATAAACCAGAAATCAAGGG
AGAAAGAAAAGATGAAAGACAAACTGCAAAAATTGCCAAATGCGACTTTCTAAAAATG
GAGCAGATTCTGAGGCTTTCATGTCTTGGCATTCCCTCAGGAGCTGAATGAAAAAATGC
ACAAGCAGATGAAGACTCTGAGAGGGGTTTTGGAGTCTGGAAGCCTCATCCCTCAGCA
TCAAGCTGGAATGGGGAATGAAGAATAGGAGATGTGGTGCCCACTAGGCTACTGCTGAAA
GGGAGCTGAAATTCTCCACCAAGGTTGGGTATTCAAAATATGTAATGACTGGTATGGCA
AAAGATTGGG

Sequence 1262

TGGCGGCCCGCCGGCAGGTACGCGGNGCAGAAGAGGAAGATTTCTGAAGAGTGCAGCTGCC
TGAACCGAGCCCTGCCGAACAGCTGAGAATTGCACTGCAACCATGAGNGAGAACAATAAG
AATTCCTTGAGAGCAGCTACGGCACTAAAATGCTTTCACCTGGAAGTTGATGGGAGGG
AGAAAACCTCTTGATGATTTTGAAGACAAAGTATTTTACCGGACTGAGTTTCAGAATCG
TGAATTCAAAGCCACAATGTGCAACCTACTGCCTATCTAAAGCACCTCAAAGGGCAAAAC
GAGGCAGCCCTGGAATGCTTACGTAAAGCTGAAGAGTTAATCCAGCANGAGCATGCTGAC
AAGGCAGAAATCAAAGTCTGGTCACCTGGGGAAA

Sequence 1263

CGAGGTACCCAGGCCTGCAAATCTCCTGGCAGGATGGTCAGGAACTGCTCTAGCACCAGC
AGTTCAGAAATCTGTTCCCTTGGTATGGATCTCTGGCTTCAGCCACTGACAGCAGAGCTCC
CGGAGGCGGCTCAGTGCCCTCGCGAGGTCCAGGAGAATCCTGGTAGCAGAACTGCCTAAAA
AGCTGCCTGCAGAGCTCCTGCTTAAGGAGTTCACCTCTCTGTAAGCAAGTGCTCTGCCA
TGGATAAATCTTCTCTCTATCTTCACTATCAGAAGTCCTTCATCCTCTGGAGAGTTC
TGGGCTGCAGCTTTCTTTGGTTCTGTAGCCATCTCTCGGACAGGGCTGATTCCGATCGGA
CACTTCCGGTGGAAGGACTGAGCGGCGCTACACTTCAAGAATTCGTCCACAGGGACTTG
TGAGTCTCGCAGAGAAGGCGGGATGCCTTTGGACTACGATTCCAAGAATCCTTCTGGGTC
TCTTCGGGCGCAGACTTTTCGCCAAAGTCCTGAAGATCTCAGGGCTTGAAGGAGGGGGCA
TCCTTCTTCTTCAATTGNAGTAGTGTGTCTTGCTAAATAACAGAAGGGACTCCTGAAAAGA
AAATGACGTTGGCCCCGGGCGCGGGGGCTTACGCCTGCAAGTCCACACTTTGGGAGGCCGA
ACNGGCNGATCACGAAGGTCAGGAGATCGANGACTATCTGGGTTACGCGGNGACACCCTG
NGTTTCTTAAATCCANAAAAAAAAAAAAAAAAA

Sequence 1264

GGCGAATTGGACTCCACCGCGGTGGCGGCCCGAGGTACAGAGATTTATAATGTGCTGCTC
TAGGTCCTATCGGGTAAAGGGATCAGCAGATGTGAAGTCAAGAGTCTCCTGTAAGATTTG
ACTTTCTTGGAACATATTTAATCCTGGGCCTCCTNTTCAAATCACCTATTTCTTTA
GTTTTTGCAGTGATACTGTGTGTTGCTTCAACAGAGGTTCAAGTTTACAGCCTTTCCC
TCAAGTGTCTTATCCTAAAAGTAAACCTAGATGATCTAAGGTGGTGGNTTCAACAGGG
TGCAAAATTTGCCTCCTATACTCGCAACACCCAGNGACAGTTGGCTATGTCTNGGAGACAT
TTTTGNGTTNTCACACCTGGANNNAGGGTGGGGGAGGTGGNGCTAATGACANCAAGNTGG
CCNTAANCCAATNATGCTGATANAAATNCTACANTGCACAAGGATAGGNTCCACANAAC
ANAAGNCTTANCCAAACCCCAAATACTAACAAT

Sequence 1265

CCGCGGTGGCGGCCCGAGGTACAAGATAGTCATCTCAGTAAAAGGTCTATTATCTAACTT
GCCAAACTTGTTTACTGAGAGCCCTAAGGAACATAAACTGCCATAATGCCGTGCACAGCT

TABLE 1
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TGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTCTCTTCCAGTTCCTCAGCAGGCCT
GGCTGAAGGCCAGGAGGGAAGGAAATATAAGAACCAACAATAAAAATAGCAATAGCAAT
AAGAAGAATGCCATCCCATGGAGCACACCATAATTCTGGAACCACCTCTCCCGGATCAGG
CTTCCATTGCTCACGATGCTCACGCTGGGCAGCCGCAACTCTACTTTGCAGAACCTCACC
AACTTGCCCAGGTATTCTCCCGGTCTTGAAGAAATGGCTCTCCACCTGAAAAGTTGATC
TTCTCCATACCAGCTTCCTTAAGCAAAAGCAATCCTCTCTTTGCTTCTCAAGGGGCAGC
ACAAAGGATGTTTTGGCTGTGTGGAACAGAAGCCCGCATTTGTAGTTGCACTGGCGAGT
GAAGTGATAGTTGACGCTGGTTGGGGTGGT

Sequence 1266

CCGCGGTGGCGGCCGCCGGGCAAGGTAAGTCTGCTAACTTTGACGCCAGCATCTCTGAAAG
ATCCCCATCGAAGGCCGGTCATTGCAAATACAGGCTGTTCTTTTACCCTTGATCTGCA
AGACATCAAGTGGAAGTGTCTCTCTTTTACAATGGCAAGTGTGGCATCAGTAATATGTT
GGACTTTGTTTCCACTTTTCGGCAAAGAGGGTATGACTCAAAGTACTGGTCTCTCCAGTG
GGATAAATCCAATGGGAATCTTACTGAAGGTAGCCTCATCTGTTTCGTCGAAGAACACCAA
GTAACAACCTNCTGCAGTGTCCCATCTCCTTCTGNAACAATGGATCACATTCGGNGTT
TTCCATCAGTTNCAAGGAGGTTTNTTNGGCTTGGGCCCTTAANAAATCTGNGCTTAAACA
AAAAGGCCCNATTCCTTCCCAAATAAAAANGGAAAAANTCGGGGGCCNCAATTTTTTTT

Sequence 1267

CACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGT
GAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAG
AAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGA
GCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAA
CAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCA
AGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGA
GCTGAAATTCCTCCACCAAGTTGGTATTCAAATATGTAATGACTGGGTATGGCAAAGA
TTGGACTAAGACACTGGCCATACCACTGGACAGG

Sequence 1268

GGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAA
ACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGC
GACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGC
TGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCC
TCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAG
GCTACTGCTGAAAGGGGAGCTGAAATTCTCCACCAAGTTGGTATTCAAATATGTAATGA
CTGGTATGGCAAAGATTGGACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAA
CACCTGAATT

Sequence 1269

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTCTACAG
AGATCCTGAAGAGATTGAAAAAGAAGAGCAGGCTGCTGCTGAGAAGGCAGTGACCAAGGA
GGAATTCAGGGTGAATGGACTGCTCCCGCTCCTGAGTTCACTGCTACTCAGCCTGAGGT
TGCAGACTGGTCTGAAGGTGTACTCTTGGTTTATCAATGGGACGTTCCAGCAATCCACAC
AAGAGCTCTTTATCCCCAACATCACTGTGAATAATAGCGGATCCTATATGTGCCAAGCCC
ATAACTCAGCCACTGGCCTCAATAGGACCACAGTCACGATGATCACAGTCTCTGGAAGTG
CTCCTGTCTCTCAAGCTGTGGCCACCGTCGGCATCACGATTG

Sequence 1270

AGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATA
AACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATG
CGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAG
CTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGC
CTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGGAGATGTGGTGCCCACT
AGGCTACTGCTGAAAGGGGAGCTGAAATTCTCCACCAAGTTGGTATTCAAATATGTAAT
GACTGGTATGGCAAAGA

TABLE 1

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Sequence 1271

ACACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCTCAT
TTTTATTTTAAAAACCATTCAGCACATTTATCTTATGTAACATGCAGAGCATATATCTAT
CTGTATTTTAAAAATTTTCTGTACTCATTGATACATAGTACTTCCTTGATGTTGTTGG
AGTCCGTGAGAAACATGGCGACTCGATCAATGCCCATGCCCCAGCCAGCTGTGGGGGGCA
GCCCATATTCAGGGCAGTACTCAAAGGTGATATTGCTTTTTTCAATGCTTCAGGGGAA
AAATCCTTTTCTTTA

Sequence 1272

TAAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAANGACA
AGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCCAGAAATCAAGGGAGAAAAGAAA
AGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATT
CTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAG
ATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGA
ATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAA
TTCCTCCACCAAGGTTGGTATTCAAATATGTAATGACTGGGTATGGCAAAAGATT

Sequence 1273

AATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCGTGGTGACGTGGTTCCCAAAGATGTC
AATGCTGCCATTGCCACCATCAAAACCAAGCGCAGCATCCAGTTTGTGGATTGGTGCCCC
ACTGGCTTCAAGGTTGGCATCAACTACCAGCCTCCCACTGTGGTGCCCTGGTGGAGACCTG
GCCAAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAA
AATAAACCCAGAAATCAAGGGAGAAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAA
AATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCCCTCA
GGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGG
AAGCCTCATCCCTTCAGCATCAAGCTGGAAT

Sequence 1274

ATCCCCGGCGNGGCNNNNCGCCCCGTTTCAAGTACTCTTTGTTTTGGCACACTTTTCTGAC
AAACAGCCAGTGTTCTCAACACATAAATACTAGTCCACGTTAACAACAATAGCATATGAG
ACCGCTCTCCGTAAAGATGCCAGATTGGATGCAAATGGACTGGAAATACCTTGGAGGGTT
TCACAAAAATAAGACAAAGGGCAAAGGAACTTTGCCAAAGGAGATGGAGAGCAATTCTTT
AAAGTTAGTGGGAGGGAGGAAGCAAAGAGCTCATAAATACAAGCCTCTTAAAATGGGACG
CATTTGCCTCGCGCCTACTGGGTGTCTGCAGCTCAGCTTGGTGCCCCACACAGGACACCG
ACTTTAAGTGGCTGCCTTTGCAAGGCTGAGAGGCCATGGAGGGGTTGATGCCTGAAGTGT
CAGCGCCATCTAGTGAAACATGGGGCATGGCCC

Sequence 1275

GGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCC
ATCCACCACTTTATAGAGGGTGTAAAAATAAACCCAGAAATCAAGGGAGAAAAGAAAAGATG
AAAGACAACTGCAAAAAATTNCCAAAATGCCGACTTTCTAAAAATGGAGCAGATTCTGA
GGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGA
AGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGG
GGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTNC
TCCACCAAGTTGGTATTCAAATATGTAATGACTGGTATGGCAA

Sequence 1276

AGGTACAAAATTATCATCATTTAGAGTTGATTTTTTACCAGCCCTGAATTTTCAAAT
TGTAATAGCTGTTTCAATCTTTTTATTAAATTAATGATTCCAGTCTGCAAAAT
GAGCCATAAGACTTTGCTNCTGTTTGNATANGATNCAATNTGGANATTGGGGGNGGGNAA
ACCATANGTAAGGTTAAACCTATCCGTACCTGCTTCATGTAAAAGACTCCACCATTTGN
TTGGATNTATTTTTTCTCCAGGCNACTAGTAAGAAAAAAGGTGAACAAAGGTGGATTN
CATCCCTNNCAAANTGGGCCCTTNTGGCNCAATTCTTTTTTCAATAATCCTATGGTANAC
CNNTTTTGGTAGATTACCTTGGTGGTNGAATTTNAGCNGTNTTGGNGGCNTAATTNNNA
AAAAATTCTTTGGGGATTAAAAATTTAAANCAAAAAACCAAACCAATAAAANTTCTAA
TCCACCCNTGNGGAAATTTATTTTGAAAAGGAAAAATTTTCAGGTTAAAAAACAAAGGG

TABLE 1
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ANTGGNTGGTTCCTTCCATTAGGTTTAAAGGGGAGGAGGNANNATTAAAAAAATTAAAA
AAATTGGTTCATTTTAAAACAAGGTTTNGAAATTTNAAGGGAA

Sequence 1277

AGGTACAAAATTATCATCATTTAGAGTTGATTTTTTACCAGCCCTGAATTTTCAAAC
TGTAATATGCTGTTTACAATCTTTTATTAAATTACTTAATGATTCCAGTNTGGCAAAT
GAGCCATAGACTTTTGCTCTGCTTGTATAAGATCANTTGAATTGGNGGGGGGGANAA
CCANTAGTTAAGNCTAAATCTAATCCGGTCACCTGGCTTCATTGTAAAAGAACCCACAA
TTGGTCTGAATTAATTTTTTGGCCAGGCACCANGAAAGNAANATNGNTGTACCAAAGNTN
GAANTACATTCCCTTGGCAAANTGGGGCCCTCTTGGCCCAAATCCTTTTTTCCAATTATC
CTTATTGGTTAAACCCCTTTTTTGGTTAAGTNTNACCTTGGGTGGTTGGAATNTTTAAA
GCCGGNCTTGGNNGGCCTTAATTTTGGTAAAAAATTTCTTTGGGGGATTTTAAATTTA
AACCCAANAANAACCANACCAANAANAATANTTCNTNATTNCACCCCTTGGGGNAAATTNA
TTTTGGGAAAAAGGAAAAANATTTTCAAGTTTAAAAAACCCAAAGGAANTGGGTNGTTCC
TCCAATTANGGTNTTAAAGGG

Sequence 1278

AGGTACATTTACACAATATTAACACTAAAAATCTGTGTTTTTTTAAAACACCATAGAAGT
CAAACCACAAAAACCCAGGATCTTGTTTTAAATGTGTTTATGAAGACTGCTGCTGAGCTC
AAAAGCATTGCAGGTAATCATGACCACCTAGATGAAAGCTGGATGTTTGAAAACCTCTTC
ATGTCCAATGAATGTAATTTTTTACCTCATCCCCAAGGTATTCTCCCATACTTTGTTT
TACTTTGACCTTCTTTTTTTTTTGGGNCACCTCTTTTCATGGCATAAGGGCCTNGACT
TGAGGGGGTACAGGTTCTTTTTNGTGGTNTAAAAGGAATTACTTTTCATTAATGAACCTC
CTCCTTGTTTCCTTTAATTTCCCTTTAAATTTTCTTCAATAATTGGTAAATNATTTT
TTTTTCNTTTTTAAGNGGACC

Sequence 1279

NCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGA
CAACGGCCATCCACCACTTTATAGAGGGTGTAATAAATAAACAGAAATCAAGGGAGAAAG
AAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAG
ATTCTGAGGCTTTGCATGTCTTGGCATTCCCTCAGGAGCTGAATGAAAAATGCAACAAG
CAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCT
GGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTG
AAATTCCTCCCAAGGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATT

Sequence 1280

GTGGCGGCCGAGGTACCAANTGAAGTGTGAATGACAATGGCCATCCANTANTTTATAGAG
GGTGTAATAAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAA
ATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTTGCATGTCTTGGC
ATTCCTTCAGGAGCTGA

Sequence 1281

CCGCGGTGGCGGCCGCTCGGGCAGGTACCATTCCTCTACATCCATTTGGTAGCAGAACCT
CAAGTGTAAGCAGTCAGTGTAGCATGAATATGAACTGGCTCAGTTTATCACTTCCTGTTT
NGACCTGAAGCACCACCCAGCTATGCAGAAGTGGTAACAGAGGAACAAAGGCGGAACAAT
CTTGACACAGTGAGTGTGTGATGACTTTGAGAGAGCCCTTCAAGGACCACTGTTTGCA
TATATCCAGGAGTTTCGATTCTTGCTCCACCTCTTTATTTCAGAGATTGATCCAAATCCT
GATCAGTCAGCAGATGATAGACCATCCTGCCCTTTTGTGAAGGAACACTTGTTGA

Sequence 1282

GAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACATAAAACATTATTCCTTCCTTGGCC
TAAAAACTCATCGCCACCTACATTAAGCTAATATGCCTGATTACTGTTTTTAGAGAACT
TATTTTATTAGGGCAGTTCCAAGCTCAAAAAATACGCTAACTGGCACCTTGTTAGCTACAT
AAAAATGCACCCTAGACCCGAACTTACTAGACTCATTATAAAATTTTCTTTAAGGTGTC
CACGCAGTCCCTGGTCACACTTGAAGCAGTCCGGAGAAATATCAGCCCTACCCAGTAAT
CCCCAGAAGGAACTTACACTTTTTTTAATCTTTTCTTACAACCTTCATATTTTATAAATA
AAAAGACAAAAATGTCAGGCCTGTG

TABLE 1
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Sequence 1283

GGTGGCGGCGCCGNCAGGTACCAAATGAAGTGTGAAGACCNGGCCATCCACCACTTTAT
AGAGGGTGTAAAAATAAACAGAAATCATGGGAGAAAGAAAAGATNAAAGACAACTGCA
AAAAATTGCCAAAATGCGACTTTCTAAAAATGAGCAGATTCTGAGGCTTTGCATGTCTTG
GCATTCCTTCAGGAGCTGAATGAAAAAATGCAACANGCAGATGAAGACTCTGAGAGGGGT
TTGGAGTCTGGAAGCCTCATCCCTTCANCATCAANCTGGAATGGGGAATGAAGAATAGAG
ATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTAT
TCAAAATATGNAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATACCACTG
GACAGGNTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCNAGGAGTTCTGGGA
NAGGNACCACATTGGGG

Sequence 1284

CGCGGTGGCGGCCCGCCGGGCAGGTACCCCGGGAGAGCCCGCTCCCCCTCCTCCCTGTG
CTGTCTGCACCCGAGGAGAGCGGCCTGCCCGGAAGTGGGCCACCATATCTGGAACTACA
GTCTATGCTTTGAAGCGCAAAAGGGAATAAACATTAAAGACTCCCCGGGGACCTGGAGG
ATGGACTTTTCCATGGTGGCCGGAGCAGCAGCTTACAATGAAAAATCAGAGACTGGTGCT
CTTGAGAAAACTATAGTTGGCAAATTCCTTAACCACAATGACTTCAAAATTTTAAAA
AATAATGAGCGTCAGCTGTGTGAAGTCCTCCAGAATAAGTTTGGCTGTATCTCTACCTG
GTCTCTCCAGTTCAGGAAGGCAACAAGCAAATCTCTGCAAGTGTTCAAAAAATGCTGAC
TCCTAGGATAGAGTTATCAAGTCTGGAAAGATGACCTCACCACACATGCTGTTGATGCTG
TGGTGAATGCACCAATGAAGATCTTCTTGCATGGGGGAGGCCTGGCCCTGGCCCTGG

Sequence 1285

CGCCGGGCAGGTACCAAATGAAGTGTGAAGACANGGCCATCCACCACTTTATAGAGGGTG
TAAAAATAAACAGAAATCAAGGGAGAAAAGAAAAGAAGAAAGACAACTGCAAAAAATTG
CCAAAATGCGACTTTCTAAAAATGNGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCT
TCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTC
TGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTG
CCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAAATA
TGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATACCACTGGACAGG

Sequence 1286

TCGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCCGCCCGGGCAGGTACAGGTAAGATATA
CTGGAGTCACAGAGCAATATGCATTAACAGGATACAACAGTTCATAAAAACTGAGTAACT
ATGCACACAAATTTCTTAAACAGCCACCTAAAGAGAAAATGCACAGATGTATGGTGGAAA
CTGTATCTAACACTGAACTACTACAGGACTCCATCAATGAGTCCAACCTTTAGTGATAA
AAACTACTGTACACTACATGAAGAACCATATGTTTATAATTATCCAAATAAAAAATGAAG
TTATTAACCTTCAAGATAATATGGTAATTTGCATTGAACCGATGATTTTACAAAATTCTG
CAAAGGTCAAAATTTTAAAAGATGGCTGAACAGTAATTGCAGCATCTAATAAAAACGCAG
CTCATTACCGAGCAAACGGTTTTAATTAATAAATTCAAAAGGAATAATCCTGACAGGAGAA
ATAAAAAAATAGATGTCAAAAGAAGATAAAATTATTTCAAAGGAGTAGTAACTCAAGTT
TTAACACC

Sequence 1287

CCGCGGTGGCGGCCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGNGCAGATTCTGAGGCTTTGCAT
GTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAG
AGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGA
ATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGT
TGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATA
CCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAGTT
CTGGGAGAGGGACCAGATTGGGGGGTAGGT

Sequence 1288

CCGGGCAGGTACAAGATAGTCATCTCAGTAAAAGGTCTATTATCTAACTTGCCAACTTG

TABLE 1
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TTCACTGAGAGCCCTAAGGAACTAAAAGTCCATAATGCCGTGCACAGCTTGAAAAGCAA
TTAGAGTAAGCAAGATAGTTTTCTCCCTTCCAGTTCCTCAGCAGGCCTGGCTGAAGGC
CCAGGAGGGAAGGAAATATAAGAACCAACAATAAAAATAGCAATAGCAATAAGAAGAATG
CCATCCCATGGAGCACACCATAATTCTGGAACCACCTCTCCCGGATCAGGCTTCCATTGC
TCACGATGCTCACGCTGGGCAGCCGCAACTCTACTTTGCAGAACCTCACCAACTTGTTCCA
GGTATTCTCCCCGGTCTTGAAGAAATGGCTCTCCACCTGAAAAGTTGATCTTTCTCCATA
CCAGCTTCCTTAAAGCAAAAGCAATCCTCTCTTTGCTTNCCTCAAGGGGCAAGCACAAAGG
GATGTTTTTGGCTGTGTGGAACAGAAAGCCCGCATTTGTAGTTTGCAGTGGCCAGTGAA
GTGATAGTTGACCCTGGTTGGGGTGGGGG

Sequence 1289

CCGGGCAGGTACCAAAATTGTAAGAAGAAGCTTGGGAAGCTGCCACCTCAGTATGCCCTG
GAGCTCCTGACGGTCTATGCTTGGGAGCGAGGGAGCATGAAAACACATTTCAACACAGCC
CAGGGATTTCCGACGGCTTGGAAATTAGTCATAAACTACCAGCAACTCTGCATCTACTGGA
CAAAGTATTATGACTTTAAAAACCCCATTTTGAAGTACACAGGAGGCAAAGTGTTTTCT
ACATCATAGACTTCACCTTCCAACCTCCTTGGAAATGTTTCTTTGGCTTACAGGAGAGA
CTAGACAGGAAGGCCAGGCAATGCTTAGGCAACTAAAATGAGGTTGGGGGTAATGCTAAC
GTCACCTTCACAGGGATGGCCACGGGGACTGTTATTCGCAAGCTGGTTTTCTAGGCCTGT
TAGCTGGAAGCATGGTGAGCACCATTTCTGGACGCTCAGGCCGTGTCGGGCTTNAAGTCA
TCTTNCACCACACAGGTACCTTNGGGCCGGNTCTAGNAACTAGTGGGATCCCCCGGGCT
GGCAGGAAATTCGAATATCAAAGCTTTATCGATACCCGTCCGACCTTCGANGGGG

Sequence 1290

AGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACCTTTATAGAGGTTGTAATAA
AACCAGAAATCAAGGGAGAAAGAAAAAGATGAAAGACAACTGCAAAAATTGCCAAATG
CGACTTTCTAAAAATGGACAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGC
TGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCC
TCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAG
GCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGA
CTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAA
CACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAGTTCTGGGAGAGGGACCAGATTG

Sequence 1291

AGGTCATAAAACATTATTCCTTCTTGGCCTAAAAACTCATCGCCACCTACATTAAAGCT
AATATGCCTGATTACTGTTTTAGAGAACTTATTTATTAGGGCAGTTCCAAGCTCAAAA
ATCGCTAACTGGCACCTTGNGTACATAAAAATGCACCCTAGACCCGAACTTACTAGAC
TCATTATAAATTTTTCTTAAAGTGTCCACGCAGTCCCTGGTCACACTTGAAGCAGTCCG
GAGAAATATCAGCCCTACCCAGTAATCCCCAGAAAGAACTTACACTTTTTTTAATCTT
TTCTACAACCTCATATTTTATAAATAAAAAAGACAAAAATGTCGGGCCTGTGAGCTGAAGC
TTAGCCATTGTAACCCCTGTGACCTGCACATATCCGTCCAGGTGGCCTGCAGGAGCCAAG
AAGTCTGGAGCAGNCGAAAAACCACAAAGAAGTGAAACAGCCAGGTTTCTGNCTTAAC
ATTAACCCAC

Sequence 1292

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACATAAAACATTATTCC
TTCTTGGCCTAAAAACTCATCGCCACCTACATTAAAGCTAATATGCCTGATTACTGTTT
TTAGAGAACTTATTTTATTAGGGCAGTTCCAAGCTCAAAAATACGCTACTGGCACCTTGT
TAGCTACATAAAAATGCACCCTAGACCCGAACTTACTAGACTCATTATAAAATTTTNTT
TAAGCTGTCCACGCAGTCCCTGGTCACACTTGAAGCAGTCCGGAGAAATATCAGCCCTAC
CCCAGTAATCCCCAGAAAGAACTTACACTTTTTTTAATCTTTTCTACAACCTTCATATT
TTATAAATAAAAAAGACAAAAATGTCAGGCCTGTGAGCTGAAGCTTAGCCATTGTAACCC
TGTGACCTGCACATATCCGTCCAGGTGGCCTGCAGGAGCCAAGAAGTNTGGAGCAGCCGA
AAAACCACAAAGAAGTGAAACAGCCAGTTTCTGCCTTAACTAATTAACCCACCTTACGAC
ATTCCACCATATGACTTTGTCCACCATTATGACTTGTTCTTGGCCTGCCCAACTG

Sequence 1293

TABLE 1
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CCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTGTA
AAAATAAACCCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCC
AAAATGCGACTTTCTAAAAATGACAGATTCTGAGGCTTTGCATGTCTTGGCATTCCCTCA
GGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGG
AAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCC
ACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGT
AATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATACCACTGGACAGGGTTAT
GTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAGTTCTGGGAGAGGGACCAGA
TTGGGGGGTAG

Sequence 1294

CGAGGTACCGCTGTGTCCGGGTGGGTGGTGTGAGTATGCCGTGCTCCAGGTGTTACAGCTG
CTTCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGCCTGTG
CCCAACTGGGTTTCCCAAGCTATGTAGTTCAGATAACCTCAGAGTGAGCTCGCTGGAGGG
GCAGTTCGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTGACTGC
ATTACACCACTCAGTATATGTGAGGGAGGGATGTGCCTCTGGCCACGTGGTTACCTTGCA
GTGCACAGCCTGTGGTCATAGAAGGGGCTACAGCTCACGCATCGTGGGTGGAAACATGTC
CTTGCTCTCGCAAGTGGCCCTGGCA

Sequence 1295

CGAGGTACCTGTGAAGACAGCTACACCTGGTTTCCTCCCTCATGCCTTGATCCCCAGAAC
TGCTACCTTCACACGGCTGGAGCACTCCCAAGCTGTGAATGTCATCTCAACAACCTCAGC
CAGAGTGTCAATTTCTGTGAGAGAACAAAGATTTGGGGCACTTTCAAAATTAATGAAAGG
TTTACAAATGACCTTTTGAATTCATCTTCTGCTATATACTCCAAATATGCAAATGGAATT
GAAATTCAACTTAAAAAAGCATATGAAAGAATTCAAGGTTTTGAGTCGGTTCAGGTCACC
CAATTTGAAATGGAAGCATCGTTGCTGGGTATGAAGTTGTTGGCTCCAGCAGTGCATCT
GAACTGCTGTGAGCCATTGAACATGTTGCCGAGAAGGCTAAGACAGCCCTTCACAAGCTG
TTTCCATTAGAAAGACGGCTCTTTCAGAGTGTTGCGAAAAGCCCAAGTGTAAATGACATTGT
CTTTGGATTGGGT

Sequence 1296

CGAGGTACAGGAGCAACCTTCTTTCCACCATTACTGGGAATTCACCACTATTTGCTCCC
CCAGCCCAGAATCATGATTCTTCTTCATTCCATTCAAGGACTTCGGGAAAAAGTAATCGA
AATGGTCCCGAAAAAGGTGTAAATGGGTCAATAAATGGAAGTAATACATCATCTGTAATT
GGTATCAACACATCTGTACTTTTTTTTTTTTTTTTTTTTATCTAAAAGCAACATAATTA
TTTTCTTGCGATTTTTTCAAGAACTCTTTTAATTGTCTAACACCTGATTCTAGTGTAT
AGCTTCTGATT

Sequence 1297

CGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGT
GTAAAAATAAACCCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATT
GCCAAAATGCGACTTTCTAAAAATGANAGATTCTGAGGCTTTGCATGTCTTGGCATTCCCT
TCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTC
TGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTG
CCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAAATA
TGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATACCA

Sequence 1298

CCGCGGTGGCGGCCCGCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACC
ACTTTATAGAGGGTGTAAAAATAAACCCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACA
AACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGC
ATGTCTTGGCATTCCCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTG
AGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAA
GAATGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAA
GTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCA
TACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAG

TABLE 1
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TTCTGGGGAGAGGGACCAGATT

Sequence 1299

CGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGT
GTAAAAATAAACCAGAAATCAAGGGAGAAAAGAAAGATGAAAGACAACTGCAAAAAATT
GCCAAAATGCGACTTTTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCC
TTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGT
CTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGT
GCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAAT
ATGTAATGACTGGTATGGCAAAAGATT

Sequence 1300

CGNCCGCCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTG
TAAAAATAAACCAGAAATCAAGGGAGAAAAGAAAGATGAAAGACAACTGCAAAAAATTG
CCAAAATGCGACTTTCTAAAAATGGACAGATTCTGAGGCTTTGCATGTCTTGGCATTCCCT
TCAGGAGCTGAATGAAAAATGCAACAAGCANATGAAGACTCTGAGAGGGGTTTGGAGTC
TGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATANAAGATGTGNT
GCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGG

Sequence 1301

CNAATTGGAGCTCCCCGCGNGGCGGCCGAGGTACAGTATGGCTTAAAAGGCTCTGCCTT
AGATTCTAGAATCCAGAACATTTTCTCAAAGACAATCAGGGTATGGGGGAGAAGTTAGT
TCCAGAGAAGAGAGCGAGTCCAGGGTAGAAGGGATTCTTCTCTCCTGAGGGTCTATGGTC
TCCATTTTTTAAAGCAGCAGNGGTATCTATCCCACTCATGGCCTAGAGGTTGCACAGAG
CTGTCTGGCACCCGCTTCTTTGGCTTTTCTCTCCTGACACCCAGCAATGCTTACTCAGAG
CGTTGAAGGCGGCCAGCACCTCGAAAGAGATTCTCTGATTTTTTGTGAACACCTGGATGG
TGAACCCATCAAGGGACTTCTGGATCTCGAAATTGTTTTTCAACCCTTCGTGAACAGACA
GAACCTCAGCTTATCCC

Sequence 1302

CCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTA
AAAATAAACCAGAAATCAAGGGAGAAAAGAAAGATGAAAGACAACTGCAAAAAATTGCC
AAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCCCTT
CAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCT
GGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGC
CCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAATAT
GTAATGACT

Sequence 1303

CCGGGCAGGTACTACCATGCCGGGCCAATTTTTTTTTTTGTTGTAGAAATGAGGTCTTGC
TATGTTGCCCAGGCTGGTCTCAAACCTCTGGTCTCAAGCGATCCCCCGCCTCAGCCTCC
CGAAGTGCTGGGATAAAAGGCGTGAACCACCATACCCAGCCAGTATTATCTTTTCAATTC
ATTTTCCAGTTGAGTATATTATTGGCTACATTTGCATACCGCACAAATTGTTCAATTTTTTA
AAAACCAATATTTTGTCTGTTGTCTACAATAAGGAGAATTGAGATGATAAACTT
ACAACCAATCATGGCCAAGTCCACTTGAGGAATTGTCTCTGTAGATTTATCTGTAGACTC
CCTAATA

Sequence 1304

AGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGAGTGTA AAAATA
AACCAGAAATCAAGGGAGAAAAGAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATG
CCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCCCTTCAGGA
GCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAG
CCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGGCCACT
AGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAATATGTAAT
GACTGGTATG

Sequence 1305

AGGTATTCGACCCACGCGCCCGTAGTTTTTATCTTTGACCAACCGAACATGACCAAAAAAC

[illegible]

AGGTGTTAGTTACCACTTCATTACTGGAGGGCACTGTCACAAACTTCTGACTATCCAGAC
TTGAAGCTGGAAGCAAATACAAGTCTGAGGGGCTCTAAGCTGGGAGGTTCTGGCCTCTCC
CTAGCTCTCTATGGCTCTACCTCTCTGCTTGAAGCTCCCTGCACTGCACTCCATTACTC
TGACTGGGGATAGGACCACTGCTGACAGGGCCCCACCTCAACTTCTTTCAATTGCCCTCTT
CCAGGAAATCCCACCCTGGGATACTTCAAAGACCTCATATGCTACAAAGATCAAGGCCAC
CTAATGAGTGCTCTAGAGATCAGCACCAAAGATGCTTGCCAGAGTCTTCTCTATATGTCC
TCCCTCCTGTATCAAATAAGTCACCAAGTATAGCTGACTATCTCCATAACATCTCTCCAG
TTGTGGCCTTAGTTCCAGCCTTCATCACTCTGCATTCTGAGGAGCTGATATCTGTCTCT
GCTGCCAGCCCCTCACCCCCAGTCGGTCTCCAACATACTTTTTTTTTTTTTTTTCGGACN
CGTGGGTCGAAAGCCTTGACCCTGCC

ACTTTTTTTTTTTTTTAAAGCTGCTCCTTGAGGATAAGGGCTAACTCACAGGCAGTGCA
CCAAGAGCCACTATAAAAAGATCCTTAATGAGCAAAATATATCCCCTATTATTTTCCTAC
AAGTTGCTTTTTACTTGAGTAGGAACCCCTTGATTGATTTTTGCGGACGCGTGGGTCTGAAG
CTTGACGT

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGCGCCGCACCTTTTTTTTTT
TTTTTTTTTTTTTTTGCCTTCAACAAAAAAGGAATTTATTGGCTCACATAAGNGAAAGC
TGANAAATAGATCTCAATTCAGGTCCAATTTGATCCANAAGTCCCAAGGGCTCCAATAG
ACTCCCTNTCACCCCTGGTACCTGCCCGGGCGGCCGCCCGGGCAGGTGTCAAGCTTC
GACCCACGCGTCCGTCTTANCCTACAAGNGGGCTNTTATGTACATAGNTGGGTAATACAT
CCAATTAATGATGTNTGACATGCTATTTTTGTAGGGAGAAAAATATGTGCTAATGATATT
TGAGTTAAAAANATCTTTTGGGGAGGATTTGCTGAAAAGTTGCACTTTTGTTACAATGCTT
ATGCTTGGTACAAGCTTATGCTGTTTTAAATTATTTAAAAAAATAAAATACTGTTTGTN
AGAAACCANCTGGTTTAGAAAAGTTTNNNTATGTGACGATAAACTAAGAAATTTCCCTTN
TTATTCCTAGTATTTTTCAGCACTCCATNAATTCTATTACCCTAA

CTATAGGGCGCAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGT
CCGCAAGACCCAAGAGAGCTGATGGTGCAGTTCAGTCTCACAGAAGTCTGCTGGAGAAT
TTCCTCTGGATTGGAGAAGGTGGTCTTTTCATTCTACTCAGGTCTTCTATTGATTGGATA
AAGGTGCACATACATCATGGNGGGCAATNTTTTTACTCANAGGACATCTGTGCCAATGT
TATCCCATNCAGAAACACCCTCCAAGTTGACACATNAAATTTAACCAATACACTTTTCC
TTATCTTNACCCAAAANTTAAGGTTAAAGAAGTTTNGGATNNCCCTGAATAANNNNATTG
GCCATTNGGAATGCCCACTTTTTNCCTTTTTTGGNGGAAAAAATTNTAAAAATTNACCNNT
TTTTNTNAAAAANTAAAAAAACTTGTTGGGCTTANGGNCCACCTNGGTTTNCANCCTTAT
TAATTTCCAGCCCTTTTTNGGANGGNCCNANNGNCAGGNNNGGATTCCCTTTGNGCCC
CCCGGGAANTTTCAANNNTTTTNGGCCNGGGGNTAANAANAAGGNGNAAATCCTNTTT
TTTTTCANAAAAA

GGGGGGGCATTTACGCTACTTAGGGCGAATTGGAGCTCCCGCGGTGGCGGCCGCCCGG
GCAGGTCGCACTTTTTTTTTTTTTTTTTTTTACCTAGCCCATGTTACCAATCTAAATGAA

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CTGTCTATGCATAGAAAAGTCTTTATGCCTAAGATAATTACTGGGATTTAAGAAAAGTGA
GAAAAAGAATAGGTGGGATTGAGAAATTAGGTAAAAACAGAAGAGGCCAACTAAACCCA
AGTGCTGCCCTTCAAGGGCTCTAGTAACCGGACGCGTGGGTCGAAGCTTGACCT

Sequence 1311

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTAATCCCGTCTT
ACAGAAGAGAAAAGTCTGAGATTTAGCAACATAAAAGTATTTCCCGTAAGTAAACAGTAGAG
CCAAGATCTTGACCTACGCCATCTGATACCTGAGCCCATGCTATAAAAGAGGAGCATTAG
AAATATTTGAAAGATAGAAATGAGAACTAGTCAATATTTATTTGCTTAGCACTGTATTC
AGTATTATGGCATCTTAAAGTAGTTAAGACTCAATATTTTCATCAAAAAAGTTTAAATCT
AATCAGAGAAT

Sequence 1312

TACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCG
TCCGGCCACATTTTCAATTTAGCCATTTTCTCTTATTCACCTTTTTCTGCTAATTACTC
TGTAATTCCTAAGAAAAGTCAATAGATAATTCCAATAATGACTTCACTCCTGAGAATT
TTATTAGCTGCTAACGCTTGTCTCATCATAAGCACTCATATGTTCAATTGAGTAAATATTT
ATTGAGTATTTGCTATGGTCCAGGCACTGTGCTAAGTATTGAGGATAAAATGGTGATTGA
AACATTTTCCCTTCTTGATTTTAAACATCTACAAAATAAAAAGTATGTTAATATCAAAAA
AAAAAAAAAAAAAAAAAAAAAGGN

Sequence 1313

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAAGCCTCACTCACAATTATT
TTTGAGATAGCTCCCAATGAGTTTAACTACTGCTATGCCAGGTGTGTGAGGCTGCTGTGG
GACAACAATCTTGATTCCTAGAAGAGTCATAAATTTCTAGGGACTACAGGCTCCTGCCAC
CATGCCTGGCTAATTTTTGTAGAGATGGGGTTTCACCATGTTGCCAAGCTGGTCTTGAA
CTTCTGAGCTCAAGCGATCCACCTGCCTCAGCCTCCCAAAGTGCTGGGATTACAGGTGTG
GGCCATCACGCTTGCCCTAGAGTAATATTCTCTATTATCAAGGTAGAAAGTTCAACATAT
ATTCATTAGATCTACTTTATAGATACTGTTACTCAGATCACTTATATCGTTATATGTATT
TTTTGTCTTCTTAACCTCAAGTCTTGATGAGAGAAGAGGTGTTTTAAATTTCTCTGTTA
TTTCTAGGGTTCTATTCATTT

Sequence 1314

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTAGATGACAACATC
AAAACATACTCTGATCACCCCGAGAAAGTAAACAAAGATGATGAGGAATTCATAGAAAGC
AATAAAATGCATGCTATTAATGGAAGAATGTTTGAAACCTACAAGGCCTCACAAATGCAC
GTGGGAGATGAAGTCAACTGGTATCTGATGGGAATGGGCAATGAAATAGACTTACACACT
GTACCTGCCCGGGCGGCCGCGCCGCGGCGAGGTCCGGGCAGGTGCTGTGAGTCTCTGG
CGAAGTTTGAGGCCAGAATGAAGAGATGTTACCCAGTATCTTGGTGTTGCTGAAGAGGT
GTGTGATGGATGATGACAATGAAGTAAGGGACCGAGCCACCTTCTACCTAAATGTCTGG
AGCAGAAGCAGAAGGCCCTTAATGCAGGCTATATCCTAAATGGTCTGACTGTGTCCATCC
CTGGTCTGGAGAGGGCTCTGCAGCAAGTACCT

Sequence 1315

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCAGAT
CAGACGTGGCGACCCGCTGAATTTAAGCATATTAGTCAGCGGAGGAAAAGAACTCTGAA
TCCGACCAGTGATAGGTGATTACATTAGCCTTTGAAGTCAACACAAAGTTTAAACACCTG
CCCGGGCGGCCGCGGCCGCGGCGGCGAGGTGTACAAGCTTCGACCCACGCGTCCGGCTGAAGA
CATCCCTAGGGCAGGTAGCAGAATACCTAATTCAACCTAGAGAGGCACAGGCTGCACGAG
AGTCTCTCAGATAAAGCCCCATTGAAAATAAATTTACAATCTAAATTTAAAAACCCGTT
AAAAAGCAGCACAGCATGAGGAGTCAGTAGATACACTGAAAGCAAGATTAGATCTTCAA
GACTTTCAAACATATAAAATTTAGAAAATTATAAATAAATTATGAAATAGAGGCCCTTTCAT
GTCAAAAAGTCATGAAAG

Sequence 1316

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCG
AAAAAGATGAGGCAACAAGTAAGAGAAAACAGCATTGAGCTTAGAGAATTGGAGAAGAAAT

TABLE 1

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TAAAAGCAGCTTACATGAATAAAGAAAGGGCAGCTCAGATTGCTGAAAAGGATGCCATTA
AATATGAACAAATGAAACGTGATGCTGAAATAGCCAAAACCATGATGGAAGAACAACAAGA
GAATAATAAAGGAAGAGAATGCTGCAGAAGACAAACGAAACAAAGCGAAAGCACAGTACC
TGCCCG

Sequence 1317

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAGCGTGCATAG
GGACTCTTGCCCTTAAGGAGTGTAACCTTGATCTGCATTTGCTGATTTGTTTTAAAAAA
CAAGAAATGCATGTTTCAAATAAAATTCTCTATTGTAAATAAAATTTTTCTTTGGATCT
TGGCAAAAAAAAAAAAAAAAAAAGTGCGGCCGCCCGGGCAGGTACACTTGTGTAT
AAGAGTTTTCTGAAAACAGTCTATCAAATATAAGAATGGTTTCTATCCAAGAATCAGCA
GTGAGGGAAGAAATACTAAACACCTGTCAAGAAATCAGTTATTCATTTAAAAAATAACA
GAACCAGTGCTGCTCTGTGCATAAAAAAGAACATGTAAATTTATTTTATAGGCTTTG
GTAACATTATATCCCCACAGAGGCCTTCAATCCTACTTAAAGATA

Sequence 1318

AGGTCAAGCTTCGACCCACGCGTCCGGTTACTAGAGCCCTTGAAGGGCAGCACTTGGGTT
TAGTTGGCCTCTTCTGTTTTACCTAATTTCTCAATCCACCTATTCTTTTTCTCACTT
TCTTAAATCCCAGTAATTATCTTAGGCATAAAGCAGTTTTCTATGCATAGACAGTTCATT
TAGATTGGTAACATGGGCTAGGTAAAAAAAAAAAAAAAAAAGTGCGACCTGCCCGG
GCGGCCGCCGCTCGTGATCTAGATCCCCGACCT

Sequence 1319

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGTTT
GGGTGGAATTATAATATTTTAGATAAGATTTAAGAGGATTCTAATTCTAGCTACTTGATA
GGAATGCGAATGATGATAAGGCTTTTAGAGTTAGATAAGAGAGAGGGCTAGCACCCCTGAT
ATTCTGTAAATTGAAACAGAGTTTCAAGTCCTTTGGTCAAGTATTACCCTTATTCCTTCAG
GAATAGTAGATATTTTAAAGATTACAGATAGGTTATCTTATCTAATTTACCTACCTATTGT
TGAAATTATTTAATTTGCATTTAACTGTGTTTTACACCTGCCCGGGCGGCCCTCTTACC
TGCTTCTGACCTTATGCTCAAGAACTCCCCTAACTCTGGCCAGAGCTCAGCTTTGGCAAC
TCTGACCGTTGAGCAGCTCTCATCCCGGTTTCTTTACGT

Sequence 1320

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT
AAGCTGCTCCTTGAGGATAAGGGCTAACTCACAGGCAGTGACCAAGAGCCACTATAAAA
AGATCCTTAATGAGCAAAATATATCCCCTATTATTTTCTACAAGTTGCTTTTTACTTGA
GTAGGAACCCCTTGATTGATTTTGGCGACNCGTGGGTGGAANCTTGACCT

Sequence 1321

GGGCGAATTGGAGCTCCCCGCGGNGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGT
TTGTTTTTTCTTACGGCAACTCAAAGCAAAGAGCTGGAGGAGCCAGCCATTATNATTGC
TTACTCTCATCGCTTAGCGCCCCAGGTGGGATGTGTTTCCAAAACACATTTTGTATTTA
TAAGGAAATGTAGTTAGGATTAATTTTATTGTCTAATTAGAAGTACATTTTGGTTAAA
TCCTCAATTTTCTGCTTGGCCAAGAAACAAAGCTTNTGTGGAACCATGGAAGAAGATGAA
AATGAGACTGGCAAAGAACAATGCTGAATCTGAAGAAGATTGGGCAAATAATCTGCAT
ACTTTTAATTGGGAATAAGATGAAAAATATGAATGCTAAATCAAATTTTTTA

Sequence 1322

CCGCGGTGGCGGCCGAGGTACAAGCTTCGACCCACGCGTCCGCTCACTTCATCCTCCAG
CAACCTATTATGATCCATTGCCACACCAACTTGCTGATGAGGAAAGTGGGGCTTAAGGAA
ATTAAGAGCTGTTGTGGGACTTCCAAAGCAGAAGACAGTAGGCTTTCAGAAATTTGATA
AAAATAGCACTTTGCATTTCTTGAATCTTGAGCTAAATGGAAATTAATACTAAACATTCT
CCACTGGTAAATAGAGAATAAGGATATTAACAGTAAAAGAAAAGAAGAAGAAAAGGAAA
TGTGCTTCCACAGATTTAGAAACATAAGTAACAATCTAAGTTAAGGCTTTGGCACCTGCC
CGGGCGGCCGCCGCCCGGGCAGGTTCAAAGACTACCAAAGTATGTATTTGATTTTCACA
TGCAACAACCTTAAA

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Sequence 1323

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTC
CGCAGAAACCTTGCCATCATTCTTACTGCTGGTTTGCATCTCATTTATGGTGNNTCTGGG
ATTTCTTCTCATGAACAGAAAGATTCAAGTGGCTGTTATATGCCTTGTCATTTAATGTAT
TGCCCTATCCTCTTTTGTATCAAAGATAGAGACTAAGACTGGGAATTATGACAGAAAAAG
TCATATTTTTCTTTAAATGATTTTGAAATGTTAAAATAGGCCAATATGAGTCAAAGTGCA
AATTTTTTGGTGACCTGCCCCGGGCGGCCGCGGCCGCGGCCGAGGTACTAAGCATTTCAGT
TCCAGGAGAATAAAAGAAATTCCTATTTGAAATGAATTCCTCATTTGGAGGAAAAAAGC
ATGCATTCTAGCACAACAAGATGAAATTATGGAATCAAAAGTGGCTCCTTCCCATGTGCA
GTCCCTGTCCCCCGCCGCCAGTCCCTCCACACCCAAACTGTTTCTGATTGGCTTTTAGCTT
TTTGGTGGTTTTTTTTTTTT

Sequence 1324

CCGCGGTGGCGGCCGCGGCCGAGGTGCCTAATATATTTACTCTCTGGTCCTTTACAGGA
AAAGTTTGCCAACCTCTGGCTTAGATGATCACCTGAGGCCAAGGAGCCTCGCCCTTGAGC
ACAAGACTATGTAGTCAGTAAAGCACAAACAAAATTGGGGCTTTCCCTAGCAAGGTTGGA
AAGGCGGAGAAAGAAATGGATTGGATAGGTAGTCAACAATGTCTGTTTTATGTTACCACA
CATTTTCTCGAGAAATTTCAATCAGCTCTCTGAGAACAGATTCATCTTTAAATGAATGTT
CATAGGTAACAGCAACTCATGCATCAATGTTGCAAAGTGAGCTCATTTTCACATTGCTTC
AGGTTAGGCAGAAGGTTTGGTAAAGGGATTAAACGTAATTGTTTCTTGNTGTTTACAAAA
AGAAGTCCCAGTTGGCATGCCACATAAAATCTTCTGNATCTCACTCTTGTTACATTTT

Sequence 1325

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGTCCGCAGAGGCC
AGGCTCCCAAACCGACAAAGTGAAGAGAGACCAGAGAGGCCAAGCATATTGACTGGTGCT
GTTCAAGGCTGCTCTTTTCCACTCACCCTTGTGTTTGTCTGCTTGTACGAGGAGAGTTG
TTCTGTATGTGGCTGCTCTCAGATCTTCCAAGCAAGCCAGTCATTTGAAGAGGTTTTT
TTTTCATGCTGGAGGGCAGGCTAAGATCAATGAGTGGAAAGAGAGAAAGGCTGTTTTAGCT
CAAGTTAAAGGAACACCTTCTAGCCATCAAAGCCGCCCAACAGAGGCAAGGGCCACCACA
CATGAGAGAGCGCTCTNTCCTTAA

Sequence 1326

GCGAATTGGAGCTCNCCGCGGTGGCGGNCGCCCGGGCAGGTACCAAATAATTACCAACA
NTACATTATGTACACCATTTACAGGAGGGTAACACAAACCTTGACAGGTAGTAACCTTTC
ACCCACATNACTGAACGCTTAACACTCCTGGCTGTTAATTGTCAGTTCAGTGTTTAAT
CTGACGCGAGGCTTATGCGGAGGAGAATGTTTTATGTTACTTATACTAACATTAGTCTT
CTATAGGGTGATAGCGGACGCGTGGGTGGAAGCTTGACCT

Sequence 1327

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATCTGTAGCCTATGACTTG
AGTCTCTTGAACCTTCTAGGAAGAGGCAAACTACAACTACTAGGATTCTGATTTAGATA
TAGGCATTCCAGAATCTTCTTTACGAGTTCACCTGCTAGTATAATCTCCACAACCTGA
ATGGCCTTGGTTGTTCTGTAATTGCTGCCAAATCATCACAAGCTGTACCTGCCCGGGCG
GCCGGCCGCGCCGGGCAGGTCAAGCTTCGACCCACGCGTCCGGATGGGAATTCAGGTATGA
AAGAAAACAGGCAAGGAGGCACTGAGGGAGAAAGACACAGACTTTATCGCTCTGTGGCTC
ATTGTTACTGGAATATTCTAAACTCTTGTTACATGCTATTATGACTTATAAAGCAGCA
ACAGCTGAGGCGCACCAGGACACAGCTTCCATTTCTTAAACGT

Sequence 1328

AGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGA
AAAAATGGGAGACAATTTACATGGACTTTGGAATAATTTTTTCTTTGCATTTCATCTC
TCAAACCTAGTTTTATCTTTGACCAACCGAACATGACCAAAAAACAAAAGTGCATTCAA
CCTTACCAAAAAAAAAAAAAAAAAAGACCTGCCCGGGCGGCCGCGCCCGGGCAGGTA
CAAGCTCGACCCACGCGTCCGAAATAATAAAGCTAGAAGTAATTTTTCTTTTGTCTA
TTTTCCAAATTGACTCGATATTGATGGCTACTTTGTAAGTTTTATTAAAGTTAAAGG
GAATATTTATTGATCACCTNTATGTGCTCAGTACCT

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Sequence 1329

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGCTTCGACCCACGCGTCCGC
TTGGGGATTTTCGAGGAAGGGTTCATAAGGGAGATTTTAGCTGAGAAATACCATTTGCACA
GTCAATCACTTCTGACCAAGTTATCAGAAAAAGGAGAAAAAGAATGTCTCCCCACTAAATG
TTCTAGGGTGGTGAGAAATCTAGGGTGGTTATCTAAATCAACAATATTTAGATATTCCAA
TATCTAAATATTGTTGGAAATACTCTCCTGAAGTGTTCAATTGAACTCTAAGAGAGACAGC
TTGTGTATCAGTGGCAGGGTTAAGGTTCAATTTTTATTCCCATATTAATCCTTTAATAT
TTAGACAAATTCCTTCTGAGTTTAAGGATAAAATGGGATGGGTTCTGCCTGGGCCTGGC
CCTCATGGGGACATCAAAGGGCAATGTTGCAAAAAAAAAAACC

Sequence 1330

AGGTCAAGCTTCGACCCACGCGTCCGTGAACTTTTATCAAGGCTTTTGCTCTTTAGACT
TGAGTTTATCTTTATAATTAAGGAGAATGGTTTTTAAAATTTAGTTCCTCTGACACCCCA
AAATTATCAAAATAAATTATGTTGTAGTGAATCTGTGTTTTGAAAGTCATTGATAGGACT
TATATGAGTCAAAATTTTATGGATTATAAACTAGGCTTTATCTGGTTGGAAATAATTGCA
ATACAAGAAGCAACTTTATTAATTAGACCTAAAGTCACAATCTTCTTCTTTGCTGCTTT
TTAAAAATTACCTATTACCTTTAAAGATCCCAAATTTAGAAGAGGAATTTAAAAATAAAG
TTAATGCAATAAAACACTTCCACAATATTCTATTACTTCAACCTCTAATCAATGAAA

Sequence 1331

AGGGCGAATNGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCTAAAATTTAAAGTATAATA
ATAATAAATTTTTGTTTTAAAAAAGAGTGTTGTCTTTGTCTTGATTTTCTGCAGTTTG
CATGTGATATTCTTAGGTATAGATTTTTTTTAGTATTTGTCCTGTATATTGTTATTCGAG
CTTCTGGGATCTGTGTTTTGGTGTCTATCATTAACCTTTGGAATATTCTCAGTCATTACTG
CTTCAACATTCAATTCTGTTGCTTTTTCTTCTGGAATTATCATTACACATATATCACA
CCTTTTGTAATTCTCCACAGTTCATAGATATTCTGTNGTATTTATTTATTTTTCTCTT
TGCTTTTAGTTTTAGAGATTTCTATTGACATCACTTAAAGATGATTGATGAGTTGATGA
GAATTGAGAGAATTGATGAGAATTGTTGATGAGAATTATT

Sequence 1332

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTTTCTGCATTTTC
TAATGAAGAAATAGGCTGGTCCTCAATTTTGAGAAGTTGTATCATCATAGGTCATACCT
AACATTCGTTTGCAAGAGCAAAAAACCCCTTGGGTTCTCTGGATCTCACACAGCCCA
CAAACCTTCAGAATGTGGTTCCCTCCGCGAGGCTTTGTCACACTTAAGATCCAAGAACA
ATCAGCCTGGCTTTAACATGGGGTAGATGGCAAGAAGGATAATGCGGACGCGTGGGTGCA
AACTTGACCT

Sequence 1333

CCGCGGTGGCGGCCGAGGTAGCGGTGCACTTTTTTTTTTTTTTTTTTTTAAATAGAGA
TGAGGTTTTGCTATGTTGCCAGGCTGGNCTNCTGGACTCAAGCAATCTCCCACTTCAGG
CTACCAAAGTGCTGGGATTTACAGGCATGAGCCACCTCTCCAGTCTCAGTTATTTTT
AATAAATGAGACTGAACGTCCTCTTATAAGGCTCACTCCCTTGTTCCTACTACATTTGCT
CTGTTTAAGTATCTCTTTAAATTCTTCAGTTAAGCGGACGCGTGGGTGCAAGACCTGCC
GGGCGGCCGCGCCCGGCGGAGGTATTAACAGGTGCTTGCAGTTTGTTGACTTTTTTGAA
AAAATCAAGTTGTAACCTTTTATTACAAATTAATAAATGAAGTTCTTAAAAATCTCAACT
GACCAGATATGAAACAATTTAAAAACCTTTAAGGCGTATTGAGAAAAACCAGGCTTTTT
AAA

Sequence 1334

ACTTAGGGCGAATTGGAGCTCCCCGCGGNGGCGGCCGCTCACCTGCCCGGGCGGCGCGCTC
GAGGCCGCTCACCTGCCCGGGCGGCGGCCGCACTTTTTTTTTTTTTTTTTTNNCAAAA
CAAAACATGCTTAGCATGCACACTTTTACCACTTTTTTCGAGTGGAAGTTTATTGGCAA
TATTAATTTTACCCTANATAGGATATGAGAATGTTTTGATAAATCACAATTTATAGTAT
ATTAATGCCATGTGAGAATTTTGTTCCTCAAGTAAGAGCTCACATGGAACCTGGTCATTA
AACCTTAAAGAAACCTTTCTCACATATCTATAGGCCTCAAATTGAAATAATCTATAAATG
AATTTGTAGATTTCTTTTAGTTAATTCCTGAGTATACAGGGCAAAAGCTTATATCCTT

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TATATAAACTTCTGCTTTGGTCTAAAACTGATATATCTTCACGTTGAGGTTTCATCTGAA
ATGCNCCACCGTTTGCTGACTTGCTTCAATATGAATTTGGATGGCTATAAAATTGACCTC
GGCCGCTCTAGAACTAGTGGGATCCCC

Sequence 1335

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCGGCCGCTCGAGGCCG
CACTTTTTTTTTTTTTTTTTTTGGTAAACAGGCGGGGTAAGATTTGCCGAGTTCCTTTT
ACTTTTTTAACCTTTCTTATGAGCATGCCTGTGTTGGGTTGACAGTGAGGGTAATAAT
GACTTGTTGGTTGATTGTAGATATTGGCGGACGCGTGGGTGCAATCTTGACCTGCCCGG
GCGGCCCATAGTTTGTCAACCACTGGTGTAACCTTAGTTATATATGATCTGCATTTTC
TTGAACTGATCATTGAAAACCTATAAACCTAACAGAAAAGCCACATAATATTTAGTGTCA
TTATGCAATAATCACATTGCCTTTGTGTTAATAGTCAAATACTTACCTTTGGAGAATACT
TACCTTTGGAGGGAATGTATAAAATTTCTCAGGCAGAGTCCTGGATATAGGAAAAAGTAA
TTTATGAAGTAACTTCAGTTGCTTAATCAAATAATGATAGTCTAACAACTGAGCAAGG
ATCCTCATCTNGAGAAGTGCTTAAAT

Sequence 1336

CCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGAAGATCCTGCGGAAGGAA
TATGTTTTTGCTGACTCCAAAGTAAGTGACAGCAAACCTTCTAAAATGGGCTGTGAGGTAG
GGAGGGGACACAAGCGTTTTGAGGCTCGCTGNGTGCCAGGGAGTGATCATTAGCTCACT
CAATCCCAGAACAAACCATTTACACCTGGGAAAGGTGAACCTAGAGAAGTTGAGGATC
ATGTTCCAGGTTGGCCTGGATTTGAGCCATCACTGTCTCAGGAGTAGGGAGGCTTCCAC
TTTGCCAGCTGCCTCCAGCCTCGAGGCCACATCCTTTATGACCCACATCTAACTCAGC
CCCACACCTGGGGGAAAGGCTTTCAGCTTCTCTGGGCTGGACTTGGGAAATCTTTGGGAC
ACTCTGACCTGCCCGGGCGGC

Sequence 1337

CCGCGGTGGCGGCCGCCCGGGCAGGTGTCCCATGAGGGCCAGGCCAGGCAGAACCCAT
CCCATTTTATCCTTAACTCAGAAGGAAATNNGTCTAAATATTAAGGATTAATATGGGA
ATAAAAAATGAACCTTAAACCCTGCCACTGATACACAAGCTGTCTCTCTTAGAGTTCAAT
GAACACTTCAGGAGAGTATTTCCAACAATATTTAGATATTGGAATATCTAAATATTGTTG
ATTTAGATAACCACCCTAGATTTCTCACCACCCTAGAACATTTAGNNGGGAGACATTCTT
TTCTCCTTTTCTGATAACTTGGTCAGAAGTGATTGACTGTGCAAATGGTATTTCTCAGC
TAAATCTCCCTTATGAACCCTTCCTCGAAATCCCAAGGT

Sequence 1338

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGCTTCGACCCACGCGTCCGCTT
GGGGATTTGAGGAAGGGTTTATAAGGGAGATTTAGCTGAGAAATACCATTTGCACAGT
CAATCACTTCTGACCAAGTTATCAGAAAAAGGAGAAAAAGATGTCTCCCCACTAAATGTT
CTAGGGTGTTGAGAAATCTAGGGTGTTATCTAAATCAACAATATTTAGATATTCCAATA
TCTAAATATTGTTGAAATACTCTCCTGAAGTGTTTCACTTGAACCTAAGAGAGACAGCTT
GTGTATCAGTGGCAGGGTTTAAGGTTTCAATTTTTATTCCCATATTAATCCTTTAATATTT
AGACAAATTTCTTCTGAGTTTAAGGATAAAATGGGATGGGTTCTGCCTGGGCCTGGCCC
TCATGGGGACATCAAAGGGCAATGTTGCAAAAAAAAAAACCTGCCCGGGCGGC

Sequence 1339

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGATTCTCTGATTAGATTTTAACTT
TTTTGATGAAATATTGAGTCTTAACCTTTAAGATGCCATAATACTGAATACAGNGCTA
AGCAAAATAAATATTGACTAGTTCTCATTTCTATCTTTCAAATATTTCTAATGCTCCTCT
TTTATAGCATGGGCTCAGGTATCAGATGGCGTAGGTCAAGATCTTGGCTCTACTGTTTAC
TTACGGGAAATACTTTTATGTTGCTAAATCTCAGTTTCTCTTCTGTAAGACGGGATTAA
AGTACCT

Sequence 1340

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCGAGGTCTACTCAAGTAGTCT
TTACCCCTACTCAAGTAGGGGTAAAGTGTAAGACAAGGAGTTTGATNTGTGTTNGCTG
ATTGTGAACCATCAATTGAGATAACTCACTACCTTCAGGCCAGCCAGTTACATACTTTTG

TABLE 1
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AAAAGCCAAGAGTGAAGCAGGGTTGTTTTTCATCCAATTCTTGGTCTTTTTGTTAAAGGC
AGCAATAAGATAGGGTGGTTTCGGGCAATCACTTAGCTAATTGGCTCTCTATAGTCATAC
CTGGATAATATTTGTAGTCATACCTGGGATAATATTTAAAGGGAAGAACTAAACATAGT
CCTTAAGTAGGAACCAACTACAAT

Sequence 1341

CCGCGGTGGCGGCCGAGGTCCTAGCTTGAGTCGACCCACGCGTCCGGCCGCTGTTTCGTAT
TTCTTATTCTACAACAAGGGNGCAGCCTANAGGCAAAACACATCCCATTGTCATTTTTTT
GTAAATAAAGTTGTATTGGAACATGGCCACTCTCATTTGTTTTCTATTATTTATGGCTGC
TTTCACTTACAACCTGAGTGGTTGCCACAGAACTGTATGGCCTGCAAAGTCTAAAATAT
TTACTATGTAGCTTTTTCTTTCTTTTGGAGACAGTGTGCCACTCTATTGCCAGGCTG
GAGTGCGGTGGTGTGATCATGGCTCATTGCAGCCTCAAACCTCCTGGGCTCAAGCAATCCT
CCCGCCTCGGTCTCCCAAGTAGTTGGGACTACAGGCATGAGCCACCATACCCGGCTAATT
TTTTAAAGTTTTTGGTAGAAATGGAGTTTTTTAATGTTGCCAGGCTGGTCTTGAACCTC
CCTGGTCTTAAATGACCCTTTTCCCATCAG

Sequence 1342

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAGTTATTTATTGATTTAATCAT
TGTAATCTCCAATAGAGATTACAATAGAGATCTCCAACATGATTTTCATGCATTTAGAGGA
GAAATATTTCTGGTTAAGTGGAAAATTGTGCGGATTTGGCTTCTGGAAGACCTTCATTC
TAAAGCAGCGGACGCGTGGGTGCGAAACCTGCCCGGGCGGCCGCGCCGCGGCGAGGTCTG
CAATCCAGCTAGGCATGGGAGGGAACAAGGAAAAACATGGAACCCAAAGGGAACCTGCAGCG
AGAGCACAAAGATTCTAGGATACTGCGAGCAAATGGGGTGGAGGGGTGCTCTCCTGAGCT
ACAGAAGGAATGATCTGGTGGTTAAGATAAAACACAAGTCAAACCTATTTCGAGTTGTNCA
CAGTCAGCAATGGNGATCTTTTTGCTNGTCTTGCCCATTCCTGGA

Sequence 1343

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAGCTTTAAAACCCATA
CCCCTCCAGGGTTCTTTTCTGTTGCTGGTGAAGTGCACTTTTTAAAAGAGTNATTCATAC
CATCAAGATTTTTGACAAGAAAATTTTAGAAAACTGTGGAAGAAAACCTGATTGCTCTTA
GTTCTAGCCATGTGTAATTGCTGACCACCTGAAATGGTCCAAACTGAGATTTGCTAAAGC
ATAAAATACACACCATATTTCAAAGGTTTTTAAAAGAATGTAAAACATTTCAATTAATTC
GGACGCGTGGGTGCGAAGCTTGACCTGCCCGGGCGGCCGAGGTGGATGGACCCATCCATTC
AGGCAGGGGGTGTGGGGTGTCCCTGTGCTTAGAAACCACCTAGCATCATAAGCTGCAAC
AGCACTTTATTGGGATCTGAGTCTACAGTTCACATAGGGAGGTGAAGCCGTGGGAGAAGC
AGGGNGTAAAAAAAAAAAAAGGGGGGGGACTTTACCCCTAAGGACAGGNTGCTTTC
AAACCTAACAAAAAC

Sequence 1344

CCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGTAATTTGTTGCACACTAT
GTAACAAAACAACCTGAAGATATGTTAATAAATATTGTACTTATTGGAAGTAAAAAAA
AAAAAAAAAAAAAAAAAGTGCGGCCGCGCCGCACTTTTTTTTTTTTTTTTGTGGGGTTT
TTTTCTTTCTTTTTTTTTCAGCTACAGGAATTTAGCCAATTCANAGGAAATCTTCCCCA
TAATTATGGAACTTTNTTACAGATTTTACCAAGTCTGGTCAACCCAATAAGAAAAAGACT
GAAATAACAATAACAACCTTCAACAAATAAAAAACAGTTAAGCTAAATAAACAGATGATT
GCAGAATTTATGTGATTACTGGGTACCTCGGCCGCTNTAGAACTAGTG

Sequence 1345

CCGCGGTGGCGGCCGCGGCCGAGGTACCAAGTTTGAGTTGAAACGGTATGTGACTTCCC
CAGCTGCACCCTGGGCAGTGAAGTGCATGCACTGAGAGGTCTGTCTACAGCAGATAA
AACTCCACAGATCACTCCTCCTGTAATCCCTCTAAGTGCTCCAAGGCAGCAGAAAGGCC
AGTGCAATTGAGGCTGGAAGCAGGAGCAGAGACTCTGGGATATAGTGCGAAAGTCTCTTC
CCCTGTAGTTGGGCTAATCTGGAAAACTCAAAAACCTGGCCTGATTACCGAGGTTTCTT
TTATGGATATTTAGTATTTAGATAAAATTTTACAGTATTCTTGAAATGAACCCAATTAA
ACACATAGTTCTCAGTCTTGACCACACATTAAGAATCATCTGGTAGACTTCTGTAAACTA
CCAATGCCTGGCCA

TABLE 1

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Sequence 1346

CCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTACCTGAAAATGCTTATTCTAGC
TTCACATTTGATTGTTTGGCTAAGAAGAAAATTATTTATTAGACTTAATTTTCCTCACGA
GTTTAAAGATTGCTTCAGATCTTAACTTCTAATGAGGAAAGCTGAGAAGTCCAATGCCA
TTCTGATTCTTGCAACTTACAAGTAGTCTTTTTTGTCTANACGCTTTCAGGACCTTCTT
TTTTCTCAGTCAGTGTATCCAAACCTTCACAGTGATATCTTTTGGGTACCT

Sequence 1347

CTCCCCGCGGGGGCGGCCCGCCGCGNAGGCNAAGCTTCGACCCACGCGTCCGCTTTAAAGG
GAATTCNTGTAGAGTGGGAGGCGAACACGNCTGGNNCTTCCAACCTCAGGAATTCTCGTG
GCTGGGCTGGGTCAGCGATGGCTTTGTCTCTTTATGTCTAAAGTGCCCTATGGCATGCTG
AAGGTTACCTAACCATTCTTTAAAAGGAGAATGACCCTCCATGGGAATGGCCAGCCTGCC
AACTGTGCAATTGAAGAAGACCCGATGGATCAACCCCATGTCTTCTTGGGGAGAAAGTG
CATAAACAGGGGTCCCTTTTTTTTTT

Sequence 1348

AGGTCAAGCTTCGACCCACGCGTCCGCAAAAATCAATCAAGGGTTCCTACTCAAGTAAAA
AGCAACTTGTAGGAAAATAATAGGGGATATATTTTGCTCATTAAAGGATCTTTTTATAGTG
GCTCTTGGTGCACTGCCTGTGAGTTAGCCTTATCCTCAAGGAGCAGCTTAAAAAAAAAA
AAAAAAAAAGT

Sequence 1349

GCGCGTATACGACTCCTATAGGGCGAATTGGGAGCTCCCCGCGGTGGGCGGCCCGAGGTA
CAAACCTATGTATCTGAAACACTTCTATTTGGCAATTTTATAACAAATCAAATTTTAAAA
GAACAAAAGAGATTGCAGATTACTTCGCAGATACAGAATAAAGCAATTGATGAAGTGCTT
AAGCAAAAAGAAACAACAAAAAAGAAAACACACTGCTTTTCTTTTAAAAATAAAATCAC
ATTGCTATAGATCAAATGGATAATACCCTTATTAACAACCATTCAGAATGTCTTATAG
TAGCAGTGCTTTTATTTGCACTTCACTTAATTTTATAAGACTCATTTTCATGTATATAGC
TCTTTACCCCCATTGTTAACGAATAAAGTCTCTCATAATTTTACACTTTTAAATTTTT
AAAGCAATGAGAAATGATTTATGTATCGTGGAACCTTCCCATTTTGAACCAAAGGT
TTAATTCTATATTTTGNCTAATATTTCTTAAAAAAT

Sequence 1350

CCGCGGTGGCGGCCCGCCGCGGCGAGGTACTATCTATAAAGGAGGTTTGATGTTTTCTTA
CTGTTTTGTAAATATTTACGATTATCTTTAAAAAGTAAGGACATTGGCCGGGTGCGGT
GGCTCATACCTGTAATCCCAGCGCTTTGGGAGGCNNGTGGGTGGATCACCTGAGGCTAGA
TAGTTTTATTCATTGGCTGTTTACCAAAAAAAAAAAAAAAAAAAGTGCGGCCACCT

Sequence 1351

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGAGCAGGATTACCATGG
CAACAACACATCATCAGTAGGGTAAACTAACCTGTCTCACGACGGTCTAAACCCAGTAG
AAACAAAGTGCGGCCGCGCCCGGGCAGGTGCCGCACTTTTTTTTTTTTTTTTTTTAG
AATAGGATTGAATTTTATTAACAAACAAAAATAAATCTAAAAAGCTTCCTTCAGTTACAA
TATGCACAAGAATTTCTGCATTACATCTTTGACATAAAATGTTCTGAATGACAGAAGTA
GAAGTAGAACTTACTACATTTGAAGACAGGAGTTGAGCGCTGAAAACACACACATTTA
TAGAAAGAAACCAAAGTTTACAGGGAAGACCTGTGATCTCTGGCTACAGGAGCTGAAAT
TAGGAACATGAAAGAACTTGGAGAGAGAAGACATTCAATACTCTAAATACTTCAGCAA
AAATAGTCAAACATNTGTNAACAACTTGGNACAAACTTTATATGGTGGGGGGTGGCTAT
GCCGGAATAANTCTTNACTGGNTATTATTCACCTCAAAAAGGGGGNTTTAATGNTCACG
AATCCTTCTTTAAAAATAAANAAGCNTGGNTTNTTTTTCTGGNGTCAAGAGTAAANG
TANTAGGNNACTCAGGGATGGTTTGAATTTTAAACGGGGCNTTCCACCTTGGTG
CTNGTGGCANTTTANCCCAAAACGGCNAANAACCGGCCGNGGTCAACTTGNAACCT
GGCGGNTTNAATANGGACCCCGGGTGGGGGATTNANTNAGNTTGANCCGNNNCTTGGG
GGGGCCGCCC

Sequence 1352

TABLE 1
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CGAGGTCAAGCTTCGACCCACGCGTCCGGTACTAGAGCCCTTGAAGGGCAGCACTTGGG
TTTAGTTGGCCTCTTCTGTTTTACCTAATTTCTCAATCCACCTATTCTTTTTCTCAC
TTTCTTAAATCCCAGTAATTATCTTAGGANAAGCAGTTTTCTATGCATAGACAGTTCATT
TAGATTGGTAACATGGGCTAGGTAAAAAAAAAAAAAAAAAAGGTGCGACCTGCCCG
GGCGGCCGCTCGAGGCCGCCCGGGCAGGTACTATGTCGATTGACAGAACATTGAGAAGA
TTCTCGGCCTTGCCCTTCACGAGCCGCCACCAAGCAGGCAGGTGGATTTCTTGGCCAC
CACCTNCTTCTGGGAAGTTCTCTTGAAGTCAAGAACTCTTATTTCTATCATTCTTTCT
AGACACACACACATNAGACTGGCAACTGTTTTGTAGCAANAGCCATANGTAGCCTTACTA
CTTGGGCCNTTTCTAGGTTTGAATTATTTCTAAGCCTTTTGGGNATGATTAGAGNGAAA
ATGGCNCNGCAAACCTGNAGGGGCTTTTGGNNCCANAATGATTTTAAATAAAAAAAGG
GGATTGAATAGNTAAANTCAAGGGAANGGTTTATGNAAAGGAAAAAAAAAAGCCTCCTTC
NTGGTTTAAATTAACAAAAGGTNTTTNTNGGGGGACCGNCTNTAAAGNACTNGGGNTTNC
CCCGCAAGGTGGGNNGGTATTNACCCNTTTNNGGNTTNAAAAAAAAAANTTNGNNNGGT
NAACCCTGGAACNGGGGGGGTNGGNG

Sequence 1353

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCCGGCAGGTCTTCGACCCACGC
GTCCCCGGGTTTCAAACCTGAATAACTCATTGTTGGGTCTGGATCTGTAAAAAGGTTTTGT
CACTGATGGGCAATATGGAGAGAATGTAAAAATATCTAACTTCAAACAGAAAAAGAAAC
AACTGGATGAAAGCTATAAACAATAGTTGAGAAGATTGGCGTAGAGGATTTACCTACAGA
ACTTCAGGAGATTCTAAGAAGGCCCTTCAGTGATCTTTTCATCAATATCATCAGGCCTTA
TCATTGTTTCACATTTGCTTCTCTTACCATAGGGAATATAATAATTATTTACTGGTTAA
CTTCCTAGGGAGATTGCTGCGGCTTATTTAAGATCCAAATTTTAAAGTAATAATTTCTG
TTGAAGCTGCTTGTGAGGTGGTTGGGTGGGCAGATAGAGTGAAGCCAGGGACACACACTA
AATGAGCCCGGGATGTAGGCAGGTTTTGATGTTTTGCTTGTCTTTATCCCTAACATT

Sequence 1354

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGATTCTCTGATTAGATTTTAACTT
TTTTGATGAAATATTGAGTCTTAACTACTTTAAGATGCCATAATACTGAATACAGTGCTA
AGCAAAATAAATATTGACTAGTTCTCATTTCTATCTTTCAAATATTTCTAATGCTCCTCT
TTAAGCATGGGCTCAGGTATCAGATGGCGTAGGTCAAGATCTTGGCTCTACTGTTTACTT
ACGGGAAATACTTTTATGTTGCTAAATCTCAGTTTTCTCTCTGTAAGACGGGATTAAG
TACCT

Sequence 1355

AGCTCCCCGCGGTGGCGGCCCGCCCGGGCAGGTCTTCGACCCACGCGTCCGGGGTTTCAA
ACTGAATAACTCATTGTTGGGTCTGGATCTGTAAAAAGGTTTTGTCACTGATGGGCAATA
TGGAGAGAATGTAAAAATATCTAACTTCAAACAGAAAAAGAAACAACCTGGAATGAAAAG
CTATAAACAATAGTTGAGAAGATTGGCGTAGAGGATTTACCTACAGAACTTCAGGAGATT
CCTAAGAAGGCCTTCAGTGATCTTTTCATCAATATCATCAGGCCTTATCATTGTTTCACA
TTTGCTTCTCTTACCATAGGGAATATAATAATTATTTACTGGTTAACTTCCTAGGGAGA
TTGCCTGCGGCTTATTTAAGATCCAAATTTTAAAGTAATAATTTCTGTTGAAGCTGCTTG
TGAGGTGGTTGGGTGGGCAGATAGAGTGAAGCCAGGGACACACACTAAATGAGCCCGGGA
TGAGGCAGGTTTTGATGGTTTGCTTG

Sequence 1356

CGCCCCGGGCAGGTACTATCTATAAAGGAGGTTTGATGTTTTCTTACTGTTTTGTAAAT
ATTTTCAGCATTATCTTTAAAAAGTAAGGACATTGGCCGGGTGCGGTGGCTCATACCTGTA
ATCCAGCGCTTTGGGAGGCNNGTGGGTGGATCACCTGAGGCTAGATAGTTTTATTCACT
TGGCTGTTTACCAAAAAAAAAAAAAAAAAAGTGCGGCCACCT

Sequence 1357

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTGCGTCCCGAGTGTTTCCA
CTCTGTCCATAAAATGGGAGCTAATATTCTCCAACCTGTGTGCCTGACATGATGGTTAA
GGGATTAAACAAAACAATAGTTTGAATTTATTCTGTCAGAGCAAACCTGCTGGTAAATAA
AAGGCTAGTGACGAAAAATAAATTTTAAAAAACCTAATAAAACAAGTTTGTAATTTATA

TABLE 1

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ATTGTATACAAATAAAAGATGTTACAAAAAAAAAAAAAAAAAAGGACCTGCCCGGGC
GGCCGGCCGCCCGGGCAGGTTTTATTAAACATTCAAACCTTCATTAAGACATGTGCAATAT
GGCAATTTTACTGGGGATTAAACCCTACCTAGGATTGCTTGCTGGGGCTTAGCAACAGGG
TCCAGTTCACACTTAGCACTAATTAATACTTTATTGAATAAATACAATACCAAACAAAA
TGCATTCAAA

Sequence 1358

CCGCGGTGGCGGCCGAGGTCAAGTTTCGACCCACGCGTCCGCATTATCCTTCTTGCCATC
TACCCCATGTTAAAGCCAGGCTGATTTGTTCTTGATCTTAAGTGTGACAAAGCCTGCGG
GAAGGAACCACATTCTGAAGTTTGTGGGCTGTGTGAGATCCAGAGAACCCAAGGGGGTT
TTTTGCTCTTGACAAACGAATGTTAGGTATGACCTATGATGATACAACCTTCTGCAAAAT
TGAGGACCAGCCTATTTCTTCATTAGAAATGCAGGAAACCTGCCCG

Sequence 1359

CGCGGTGGCGGCCGAGGTCAACGCTTCGACCCACGCGTCCGGGACCTCAGAATATAAAAA
TATGGTTTTTTTTTCAGACTTACTAGTTTTTTTTTGATAATTCCTCTACGAATGTTGATT
AACTTAGAAATATGTAAATTTAATATTCAAAACCAAATTATTTTTTAAAGAGGAAAAAA
TATAAAACCTGCCCGGGCGGCCGGCCGCACTTTTTTTTTTTTTTTTTTTTNAACCTTT
AATAGNGTNCGGAAGNTGAATAATTTATGAAGGAGAGGGGTCAGGGTTGATTCTG

Sequence 1360

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTGAGTCGACCCAC
NCGNCCGGAGATGTATACTGCCACTATAGGAACTATAAGAAAAAGTCAAATGGAAATNTN
ATAAATAAAAAACCACAGTCACTATAATGAGGAAATACTTTGATANGGNGTCAGTGAACTC
AAAAATNANTCAATNGAACTACTCAAACCTAAACCTCAAAGAGAAAAAAAANGATGGGAG
ATAATTATTTTTAAGAATTGGTCATCAAATGTAGCAACAAGTTCGCCTTATCCTATAT
CATTTGAATTTTCAAAAAATAAGCTCATTATACAATCTTTAAATATTTTGAATAGAACT
GTTTCATGTGTTATTNGTGAAAAAT

Sequence 1361

CCGGGCAGGTCTACTCAAGTAGTCTTTACCCCCTACTCAAGTAGGGGGTAAAGTGTAGAA
CAAGGAGTTTGATCTGTGTTCAACTGATTGTGAACCATCAATTGAGATAACTCACTACCT
TCAGGCCAGCCAGTTACATACTTTTGAAAAGCCAAGAGTGAAGCAGGGTTGTTTTTCATC
CAATTCTTGGTCTTTTTGTTAAAGGCAGCAATAAGATAGGGTGGTTTCGGGCAATCACTT
AGCTAATTGGCTCTCTATAGTCATACCTGGATAATATTTGTAGTCATACCTGGATAATAT
TTAAAGGAAGAACTAAACATAGTCCTTAAGTAGGAACAACCTACAATTTTAAC

Sequence 1362

ACTGTTTTTTTTTATTTGTTGAAGTTGTTGTTGTTATTTCACTCTTTTTCTTATTGGGTT
GACCAGACTTGGTAAATCTGTAAAGAAAGTTCATAATTATGGGGAAGATTTCCTCTGAA
TTGGCTAAATTCCTGTAGCTGAAAAAAAAAAAAAAAAACCTGCCCGGGCGGCCGGCCGCC
GGGCAGGTTACAAGCTTCGACCCACGCGTCCGGGAAATTTTAATTAATAAGGTGAACA
TTTTAATGACCTAATACATATTTAGTCCACATTGAACTTTGGCATTGTTGNCATTGCCA
TTAAATTTTTGATGGCATTAAATTTTATGCCATTAAAAATTTTTGATCAGTAGGTAG
CA

Sequence 1363

CCGCGGTGGCGGCCGAGGTACCACGTTGTCCCCTGAAAGGTGTTGTGTCCCTCACCAGA
CTGGGAGCACCTCAAGGGCAGAACCCATGTCATGTTCTTTTTGTATTTCCAGACCTGAA
ACTGCCAGTAAATAAACCTAAAGTAGAAAGAAAAAAAAAAAAAAAAAAGTGCGGCCG
CCGCACTTTTTTTTTTTTTTTTTTTTNGGAAACCAAACATGCTTTATTTCATTTTTTT
ACAATTTATTTAAACATCTCANATATACAAATAGGTACCT

Sequence 1364

CCGGGCAGGTCAAGGAGTGTCCTCAAGATTTCCCAAGTCCAGCCCAGAGAAGCTGAAAGCC
TTTCCCCCAGGTGTGGGGCTGAGTTAGATGTGGGTCATAAAGGATGTGGCCTCGAGGCTG
GGAGGCAGCTGGGCAAAGTGGAAGCCTCCCTACTCCTGAGACAGTGATGGCTCAAATCC
AGGCCAACCTGGAACATGATCCTCAACTTCTCTAAGTTCACCTTTCCAGGTGTGAAATG

TABLE 1
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GGTTGTTCTGGGAATTGAGTGAGCTAATGATACACTCCCTGGCACACAGCGAGCCTCAAA
ACGCTTGTGTCCCCTCCCTACCTCACAGCCCATTTTAGAAGTTTGCTGTCACTTACTTTG
GAGTCAGCAAAAACATATTCCTTCCGCAGGATCTCCGGACGCGTGGGTCTGAAGCTTGAC
CT

Sequence 1365

TACTATAGGGCGNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCC
GATTGATTAATACCTGTCACAGATACATTTTGGTTTACAAATCAATGAACAATGGAGGGA
ACTCTGTCCTTAATCTTGGTACGAGACAATGAACCCCGAGGTACTTACCCAGACAACGAC
GCCGCTTNACCATGATGATGGACAACAGGCAACTTTTTTTTGGAGTTTCAGCTTGCTTC
CAACAGGGACGGTGAGTGTGAGGTTTATTCCCATTCTAAGACGATAGAAGTTTTTCAGCC
TAAGCCGTATTCCTAGGTAAGCAGCTGGATTGCAGTTTTTGTCTTGAAATNTCCTTAA
TTGNNTNANNCGTTAANATTAACAACTAGCTGGNTNTTAAATTTTTNTCNTTACCCAT
TANAGGTNCCCCANAAATTNAAATNAAATTTNTGCAATTAATTTTTGAACCTTGCCCC
GGGGTGGGCCCTGGCCCCCCCCCTNGACAANGNTTTTTTTTTTTTTTTTTTTT

Sequence 1366

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTCTTGAGTCG
ACCCACGCGTCCGGAGCTGCTCAATAGTGAGAATCAGGTGATATAATGCATGTGGAAAAA
GAATGTGAAAAATCTAACACTTTAGATTGTATACAGTGTTTTTTAAAAAGACACAAAAA
ACTGTCAACATGAGAAACATAAGCAAAGTTTTACTCAAGACAAACATCCACGAGTCACAA
CTTCAGTTATTCAGTCTTCAAAATAACAGAAGGGCAAAGCAAAGGTAACATGCAAA

Sequence 1367

GACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGATTCTCTGATTAGATTTT
AACTTTTTTGTGAAATATTGAGTCTTAATACTTTAAGATGCCATAATACTGAATACA
GTGCTAAGCAAAATAAATATTGACTAGTTCTCATTTCTATCTTCAAATATTTCTAATGC
TCCTCTTTTATAGCATGGGCTCAGGCATCAGATGGCGTAGGTCAAGATCTTGGCTCTACT
GTTTACTTACGGGAAATACTTTTATGTTGCTAAATCTCAGTTTTCTCTTCTGTAAGACGG
GATTAAAGTACCT

Sequence 1368

CCGCGGTGGCGGCCGTTAAAGGAATAATCTGCAGAACATCTTGATTTACAAGGGACAAAA
TGATGCAAATTATATGCTGTCCAACCTACTGGTGAAGTGGATCAGAATGGTCCAAGGACT
GTTAAACAGAGGAAGTATTTACATTCTGAAAACCTTGCGGACGCGTGGGTCTGAAGCTTGTA
CACCTCGGCCGAGGTACCTTCTGTCAAAAGACCCAAGCTTCTCCAGCTTCCAGGATAG
CAGTCAGCCAGCTGGAAAAGCCGAAGGGATCAGGGAGCCAAAGGTGACTGGGAAGCTAAAG
GCAACAATCACCTAAATTACAGTCCTCCAAGAAAGTTGCTTTCTCAGGCAGAATGCCCC
TCCCAAGGGCACAGACACACAAACACCGGCTGTGTTATNCCCATCCAAGACTCAGGCCAC
CCTGAAACCTAAGGACCATCATCAGCCCCCTTTGGAANGGGCC

Sequence 1369

CCGGGCAGGTCTGAGCGGCCGCCCGGGCAGGTTTCTGCATTTCTAATGAAGAAATAGGCT
GGTCTCAATTTTGCAGAAGTTGTATCATCATAGGTACATACCTAACATTCTGTTTGTCAAG
AGCAAAAAAACCCCTTGGGTTCTCTGGATCTCACACAGCCACAAACCTTCAAGATGTG
GTTCTTCCCGCAGGCTTTGTCACTTAAGATCCAAGAACAATCAGCCTGGCTTTAAC
ATGGGGTAGATGGCAAGAAGGATAATGCGGACGCGTGGGTCTGAACTTGACCTN

Sequence 1370

CCGCGGTGGCGGCCGCCCGGGCAGGTGTGACCCACGCGTCCGACGACTCACTATAGGGA
TCTAGATCACGAGCGGCCGCCGCCCGGGCAGGTACAGAGATTTAAATGAAATCTTCGAA
AGAATAAATTTGCTTTTCACTCCACTGTATTTTCAAAATTT

Sequence 1371

CCGCGGTGGCGGCCGAGGTACTTCAAAGTTATTGCACATACACTTGTTTACTTTGTATGT
TTTGCAGGATTAAACTTTGTATAATCTTTTACAAAATTTTTTTTTTCAGTATGCAAGCTT
GCAAGATGAAAATAAACCTGTTTGCCTGATAAAAAAAAAAAAAAAAAAAGTGCGG
CCGGCCGCCCGGGCAGGTCTTGAGTCGACCCACGCGTCCGCCGGAGAnnnnnnnnnnnnn

[illegible]

CCGCGGTGGCGGCCGCCCGGGCAGGTTATAGACAATATGCTCCTTAAGGTCCCTTTCAGT
CCCGTTCTATGGATCTGTGTAGTTTCGCTTCTTTTTCAATATGCTCAGAATTAGGACAC
CAATGTTAATGGAAGATAAGGAACTATACCACCTATCCCTTATAGAAGATTTGTGCACT
AACTAATATGAGCCCTGGAAGATCAAGCCAGTAGAAGATAGAAGATCTATCCCTGCTTTA
TACTTTGGATCATTTATTTGTGAAGATCACAACTTTCAAAGTTTTATTATTTCTTAGGTC
TTCATGGAAGTTCGGGGAAATTAAGTGGATCTACTTCTAGTCTAAATAAGCTCAGTGTTT
AGAGTTCAGGGAATCGCAGATCTCAGTCATCTTCCCTGTTGGATATGG

TACTTAGGGCGCAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCG
TCCGAAGAAGTGCTATGTGGCGAGAAAAAAGTTTTAATGTATTGGAGAAGTTTTAAAA
AACCCAGAAAAATGCCTTTTTTTTTTTTTTTGAACATAAACTCAAGATTTTATTGTCTTC
ATAATAAAAGATGACACTTAGAACTGGATCACTTGGCCCTTCTCTTCTTATCTCCTCCCA
GTTCAAAATGCTTGCATNTTTAATAGCCAGCATNTTTTAANATCTGCAGGTNGGGCTT
AAACNCCNCTTAAAGCCTTAAACACAAATTTTTTTTTTGGNGGNTTTAAGCCCTTTTT
TCCCGGAAAAAANTCGGNTTNAATTTTGGNCCNANAAAAANNACCCCTTTTGTTTTTTTT
NNNAANAAAAACCNCTTTTTTNNNTNNGGGGGGAACCNCTGCCGGGGGGGGGGNCGTT
TTTAAAAAAAAGGGGGNCCCCCCCCGGGCNGNGGGGGATTTTTTTTNTAAANNTTTTT
TTNNNCCCCCCCCCCC

CCGCGGTGGCGGCCGAGGTA CTTCAAAGTTATTGCACATACACTTGTTTACTTTGTATGT
TTTGCAGGATTA AACTTTGTATAATCTTTTTACAAAATTTTTTTTTT CAGTATGCAAGCTT
GCAAGATGAAAATAAACCTGTTTGCCTGATTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
GTGCGGCCTCGAGCGGCCGCCCGGCGAGGTA CTTATAAGAGGTGTGGGTGCTTGTTTG
GTCAGGATGTTAGAAAGTGCTGATAAGTNNCATGATCAGTGTATNCCAAAAGGTTTTTAG
GAAGTATGGCAAAAANTGTTGTATTGGCTTTTATGGGGACATGATNNTAGTCNNCTTCCT
TTTTAAANANGNNTTATNTTGTTCNANTGGNTTAANTGGTTTTTAAAAA

TAACGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGAC
CCACGCGTCCGGCCACATTTTCAATTTAGCCATTTTCTCTTATTCACCTTTTTCTGCTA
ATTACTCTGTAATTCCACTAAGAAAAGTCAATAGATAATTCOAATAATGACTTCACTCCT
GAGAATTTTATTAGCTGCTAACGCTTGTCTCATCATAAGCACTCATATGTTCAATTGAGTA
AATATTTATTGAGTATTTGCTATGGTCCAGGCACTGTGCTAAGTATTGAGGATAAAATGG
TGATTGAAACATTTTCCCTTCTTGATTTTAACATCTACAAAATAAAA

CCGCGGTGGCGGCCGCCGGGCAGGTAATCACACAACACTTTCTTTTCCAACTGCTGCAA

TABLE 1
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AGTGCACTCTACAATATGCTATTACAGATCCACTTTTAAAAGGTTTCCTGTGACATTACAG
CAAGCCTCTTTTTTCAAACAGAGGAATAATCCCAAATTCTTCCTCAAATAAACTCCATT
CAGTAAATGGTAAATACATAAAAAATTACAGTAAGCCAGACACTTAAAAGGACAGCCAAG
AAGTCTTCCAACAGTTTATTAGAAAGAATGTAGACATTTAAAAAATCCCCACTGTCATG
AACATAAATTGAGGTTTTAGCCCGGGTATAAGCTGAATCAAAAAAGGAAATAAAAAAT
CCAATAGTGTATTAAACATTTTCACTCATTTGCCATACTGACAGTGCAAATCAAATCTG
GACTAA

Sequence 1378

CCACTGGATTGACTCAGAGAGGACCCCCAGAGGGTGTCTCCATCTTCCCTATTTATTTT
CAGCCCTTGAGGGCTTCATTGTAGATCAAAGCCAAGGCCCCAGGAAGGNGACATACTCC
TGGAAGTTCACCTCCTGGTCTTGTCCGGTCCAAGTCTTCCATCAGCCTTGCAATTTCA
GCATCCTGCAGCTTCNAGCCAATGGTGAGCTCCTTCTGGATCAGCTCCTTCAGCTCCTTC
TTGCTCAGGGTGTGCTTGTACCCCTCCCTGCCGAGATACTGCCCCG

Sequence 1379

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCCAGGGATGGGAGG
CACAAAGTTGTGATTGGGCAAAGTTTATTTTCTATGTGAGCCTGTGAGTCCACTGCCCAT
TTTGCAAGACTTTTTTTTAGCCTTGACAAAATGTCTCAGTTAAGTATAAAAAGTTTTTCCA
CTACTTAGTCCAAAAAACTATTAATCTTAATGAAATAGCCACTCTCAAAAAA
AAAAAAGTGCAGGCCGCCGCCGCCGCCGAGGTCTTCGACCCACGCGTCCGCTTTTTTC
TTCCCAAACATAGACTTGCAAGACATGGCCTGTATGAGAAGAAAAAGACCTNAAGAAAGC
AACGAAAGGAACGCAAGAACAGAATGAAGAAAGTCAGGGGGA

Sequence 1380

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATAGCACATTACAGTCAAA
TCCCTTCTCGCCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCTCC
GTGAAATCAATATCCCGCACAGAGTGCTTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAGTGCAGCCTNGAGCGGCCGCCGCCGCCGAGGTACATNTATTTTGGATTGTATATTGNG
TTTGTGATTTACGCTTTGATTCATAGTAACCTNTTATGGAATTGATTTGCATTGAACAC
AAACTGTAAATAAAAAAGAA

Sequence 1381

CGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAATCTGTCAA
ATATACTATGAAATGCATAGTCTCCACTTAAATGCTGAATGACACACACGTTTTGCAAG
CATTACTGCTTTCCACAAAACTGCTGAATAGGAGTCCGTCCTGCCAAGATCAGTGTT
TAAGATGACTTTATGATGCTGATAAGTATTATTGGTGGTGGTGGTGTTCAGAAAGTTTG
TCACTCATGAGATGTCTGAAATCTTGTCCGAATCCATGGAACATAGGGTGGAGGCCAG
CTCCCCCTTTTTTAGATGATCAGATAGTTCTGAGCAGAGATGTGGTCTCACCCTGCAG
TTCTGCAGGAGCTGCTGCTGCTGGGATGGCTGCTGG

Sequence 1382

CCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCG
TCCGATTTTTTAAAGTATTTTCTAGTCTTTTCTCTCTGTGGAATGGTGAAAGAGAGA
TGCCGTGTTTTGAAAGTAAGATGATGAAATGAATTTTTAATTCAAGAAACATTGAGAAAC
ATAGGAATTAACCTTAGAGAAATGATCTAATTTCCCTGTTACACAACTTTACACTTT
AATCTGATGATTGGATATTTATTTTAGTGAACATCATCTTGTAGCTAACTTTAAAAA
ATGGATGTAGAATGATTAAAGGTTGGTATGATTTTTTTAATGTATCAGTTTGAACCTA
GAATATTGAATTAATGCTGTCTCAGTATTTTAAAAGCAAAAAAGGAATGGAGGAAAAAT
TGCATCTTAGACCATTTTTATATGCAGTGTACCTGCCC

Sequence 1383

CGAGGGAGTCTATTGGAGCCCTTGGGAACTTCTGGATCAAATTGGACCTGAATTGAGATC
TATTTCTCAGCTTTCATTATGTGAGCCAATAAATTCCTTTTTTTGTTGAAGGCAAAAAA
AAAAAAAAAAAAAAAAAAGT

Sequence 1384

TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT

TABLE 1
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TTTTAACGTTTTAATTAATGGATTTATTTAAAAAGACTATAAAATCTGACATCAAGAGA
GATAAAAAAAAAAGACCCATAAGATTTAAATTGACAAATGTAAATGATTGGCTACAATG
TAAAAATACATTTNCCAGCCCCCAAACAAAACACAAGTATAGTAATTATAAAATTTTGG
ACCTGCCCCG

Sequence 1385

AGGTCCTAGCTTGAGTCGACCCACGCGTCCGGCCGCTGTTCTGATTTCTTATTCTACAAC
AAGGGTCAGCCTACAGGCAAAACACATCCCATTGTCATTTTTTTGTAAATAAAGGTTGTA
TTNGGAACATGGCCACTCTCATTTGTTTTCTATTATTTATGGCTGCTTTCACCTTACAACC
TGAGTGGTTGCCACAGAACTGTATGGCCTGCAAAGTCTAAAATATTTACTATGTAGCTT
TTTCTTTTC

Sequence 1386

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTC
CGAGAAGAGTTTGCAAATGCAACAAAATATTTAATTACCGGTTGTTAAACTGGTTTAGC
ACAATTTATATTTCCCTCTCTTGCTTTCTTAATTTGCAATAAAAGGTATTGAGCCATT
TTTTAAATGACATTTTGA

Sequence 1387

CTACTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTT
TTTTTTTTTGCTTCAACAAAAAAGGAATTTATTGGCTCACATAAGTGAAAGCTGAGAAA
TAGATCTCAATTCAGGTCCAATTTGATCCANAAGTTCCAAGGGCTCCAATAGACTCCCT
NTCACCTGGTACCTGCCCCG

Sequence 1388

TAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGG
GGAGGACCTAGGCAACGGCCTGAGACTCCGAGACTCTATGTTGAAGATGCCTGGACTAAC
CTACTGAAGATACCGTGTTTTACCAACAGCCAGCACCAATAGGAAGATATGAATGAAGC
CATCTGAGACCAGCCATCTGGCAGCCAACTGCCAACTGACTGCAAATGCATGAATGATC
CCACTGACACCACGTAGAGCACAAATGAGTTGCCTCCACTGAGCCCAGCCCCAAATTGTTA
TCCTATAAAATCATAAAACATAAACAGTTGTTTTAAGTCAAAAAAAAAAAAAAAAAAAAA
ATTAAGTGCGACCTGCCCGGNNCGGCCGCGCCGCGCCGCGGCGGCGGCGGCGGCGGCGG
GATATAGCAGGCTTAATGGTTCTATATTTTCAAAAGTTTTTAAGAATGGTT

Sequence 1389

TTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGCGGCGGCGGCGGCGGCGGCGG
CCTAGGAACTATGTTAAAAAAAATTCAAGAAAGAATTTAAGGGAGATTACAGTGTTA
CTGTGACACCAGGAAAACTTAGAACTTTGTGTGAAATAGACTGGCCAGCATTAGAGGTGG
GTTGGCCATNANAAGGAAGCCTGGACAGGTCCCTTGTTTCAAAGGTATGACACAAGGTAA
CCCNAAAGCCAAGGCACCCAGACCAGTTTNCATACATAGAAAGTTACAGCTGCTTTTATA
CCCCCTTGCCCCGCCAACGTAGTTAAGAGAACAGCAGCATAAGCGGCTGGCAGAGGCAAG
GAAAGACCAGTAGAGAGAAAAAAGGCCATCTATACCAATTNTAAGTTAATTTAGACTAA
ACAAGGTCTTAATAGCAAAGGATAATTGAAATCCCAAACCTTACAAGGTTTTTTAAC

Sequence 1390

CCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGGGTTTCATGAATGGAAACCTAAG
TAAACTAAGCTCATTAGTGACAGACTTGTTTTCTTCTTGTTATTCCTCCAGCAACTCCC
TCACCACCACGCCTCCCTGCCTACCATCCCCGGAAGGGTGCTTATTCTTTAACAAAGAGA
ATCTAAAAAAAAAAAAAGTGCGGCCGCGGCCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG
TACTCACATAATTCGCCTTCTACCTTTCACCTGCTTATGTAATAATTTAACACTGTAGAG
GGGACATGGAGGTGACCGGAGTATTTAGTGGGTTCCTTGCTCCTGGGCTGGGCAGGTTCA
CAGGCCCCACAGGCCTTGGGCCCCAGCATC

Sequence 1391

CCGCGGTGGCGGCCGAGGTACTCTGAGGTCAAGTCAAACTATGCTTTAGAACCTTCATCT
TTTGCTTTCTTGGGCTTTACTTTCCAAAATGGACTACAGGATAATGAGGCTTTTTTAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGT

Sequence 1392

TABLE 1
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CCGCGGTGGCGGCCGCACCTGCCCGGGCGGCCGCTCGAGGCCGCACTTTTTTTTTTTTTT
TTTTTTTTTTTTAAAAATTCAAAAAATTAGTTTATTAGCTTAATATAATTAGGTCAATGG
AATCCTGTTTTGATCTCAATACTTCCCATATTGCAATATATAAATGNGACAAATTCAGT
GTTTTGTGGCATAAATAAGTGTCTAAGCTGGGCAGTTAGTCTACCC

Sequence 1393

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTTTTTTTTTTTTTTCT
TTTGAACAATTTTTCTGAAATTTATTTCTAAAAGTCAGAGACAAAACCTTTAGGAGTGAC
ACATTTATACTAAGCATACATGCGTGAGCAAAAAAATAAGCACAGAATACAAAATGA
AATAGTAAAATTTAATACAGTATTCTGAATACAAGTAGAATACCACTAGATAAGAATTG
TATTTACCTAAGAAATCTATGATAGNGNGGGNGGAGATAAACCAGTTTAGGATAGCCACT
TCACTATTCACATTTAATCAGTGCTGACCAGAAGCTAAAGCAA

Sequence 1394

ACTTAGGGCGATTGGAGCTCCCCGCGNGGCGGCCGNGGTACAAATAAGCCCACCCCACT
AGGAACTATGTTAAAAAAAATTCAAGAAAGAATTTAAGGGAGATTACAGTGTTACTGTG
ACACCAGGAAAACTTAGAACTTTGTGTGAAATAGACTGGCCAGCATTAGAGGTGGGTGG
CCATCAGAAGGAAGCCTGNACAGGTCCCTTGTTCAAAGGTATGACACANGGTAACCCGT
ANGCCAAGGCACCCAGACCAGTTTCCATACATAGAAAGNTACAGCTGCTTTTATACCCCC
TTGCCCCGCCAACGTAGTTAAGAGAACAGCAGCATAAGCGGCTGGCAGAGGCAAGGAAAG
ACCAGTNGAGAGAAAAAAAAGGCCATCTATACCAATTCTAAGTTAATTTAGACTAAACA
A

Sequence 1395

CCGGGCAGGTACAAAAGGGTTCCTCTATATGCCAACTAATTCCAAATTTTACTTTTACT
GCAAAAAAACCTTTTTGGCATCAAACTCCATTGTTTCTCTGCACTCTGACACCATCATT
TCAAAGGGGCTCACATAAATGATCACTACTGCTCTCTCCCTAATTTTTGAAAAAGGAGTT
TTGAGAATAAAACAGTGCTTTTATTATTAGCCAACACAAAGTGTGAGAAAATCATTCTG
AGAATTAACATTTAAGCTAACAGAAATTCAGTATACTTAAACATAATTATATTTAATG
AGTCATTATTTGGATCTAAAACGGACGCGTGCGTGAAGACCTCGGCCGCTCTAGAA

Sequence 1396

CCGGGCAGGTACCAGTTTGAGTTGAAACGGTATGTGACTTCCCCAGCTGCGCCCTGGGCA
GTGACTGCATGCATCACTGAGAGGTCTGTCTACAGCAGATAAACTCCACAGATCACTC
CTCCTGTAATCCCTCTAAGTGCTCCAAGGCAGCAGAAAGGCCAGTGCAATTGAGGCTGGA
AGCAGGAGCAGAGACTCTGGGATATAGTGCGAAAGTCTTTTCCCCTGTAGTTGGGCTAA
TCTGGAAAACTCAAAAACCTGGCCTGATTACCGAGGTTTCTTTTATGGATATTTAGTAT
TTAGATAAAATTTTACAGTATTCTTGAAATGAACCCAATTAACACATAGT

Sequence 1397

AGGTACTTTAATCCCGTCTTACAGAAGAGAAAACTGAGATTTAGCAACATAAAAGTATTT
CCCGTAAGTAAACAGTAGAGCCAAGATCTTGACCTACGCCATCTGATACCTGAGCCCATG
CTATAAAAGAGGAGCATTAGAAATATTTGAAAGATAGAAATGAGAACTAGTCAATATTTA
TTTTGCTTAGCACTGTATTCAGTATTATGGCATCTTAAAGTAGTTAAGACTCAATATTTT
ATCAAAAAAGTTTAAATCTAATCAGAGAAT

Sequence 1398

AGGTTTGAGTCGACCCACGCGTCCGGATTGATAGCTCTTCTCGATTCCGTGGGTGGTGG
TGCATGGCCGTTCTTAGTTGGTGGAGCGATTTGTCTGGTTAATTCCGATAACGAACGAGA
CTCTGGCATGCTAACTAGTTACGCGGACCTGCCCGGGCGGCCGCGCCGCGGGCAGGTGC
AAGATTCTGATCGGTATACAGTGATGATTTACTAAACAGAGACCTGTGCAGAAATTAC
ATACTATCCATCTAGATAGGTTGTTACACTTTTGCCTATTGATGGAATAGTTCCATTTT
CAAGTTTTATACATCAAAAAGCTTTTGAAGTTCACCAGACTGTCCAT

Sequence 1399

CCGGGCAGGTACTGTAAATCTACTGTAATCCTGTTTTGCAGAATACTGCACGACGGAGAT
TGAGAAGTGAGAGCTCTTATGACATAGATAACATTGTGATTCCCATGTCATTAGTAGCCC
CAGCTAAATTTAGAGAACTCCAATATAAGGGAAATACTTACTCCCAGGGTATGGTATAC

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Sequence 1407

TABLE 1
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AGGTA CTCAATCTAATCCAAAATTTTCTTTCTTAGCAATCTATTTTCTGTATTAGAAAA
ATGTTTTTTATTTCAAAGAGCCTCTCAAAGAGCATTTACGTATCTTTTACTGTTTTCT
CTCCACCTCCAAGGGGTCTGTCTAGATCAGTGCGGACGCGTGGGTCGAAGACCTGCCCGG
GCGGCCGGCCGCCCGGCGAGGTA CTGAGGACAAATCAGTTCTCTGTGACCAGACATGAGA
AGGTTGCCAATGGGCTGTTGGGCGACCAAGGCCCTCCCGGAGTCTTCGTCTCTATGAGC
TCTCGCCCATGATGGTGAAGCTGACGGAGAAGCACAGGTCTTCACCCACTT

Sequence 1408

AGGTACATATCACACATTTCCAAAATTTGAGACCACTAATGTTTTTAAATTTCAAATATGT
ATATAAATATGTATTCTTATTTCCAATTATTTCTTGGCATGAATTCCTAGAAATTGATC
TATTTAGTATAAGTGCTTTTTAGCTATATGTCCACTAGTATGGTATGAGAATGCCCTGT
TTATGCCAGTATTATCATCATTGAATATATTACTGCTGATGTTGTGGTAATACATTTAAA
CCAATGTGATGGGGCAAAAAAATTATATTTTACTTACATCTTTAAAATTACTGGNGATC
TCTGNTATTGACAAGCTGGGCATANAAAAAGTAAATTAATAGAATT

Sequence 1409

CCGGGCAGGTTCGGACGCGTGGGTCGAAGCTTGTACAAAAACCCAAGTATCACCTGAATTA
CAATTATCTTAAAAATTTGTCCTTAAATAGCTTACTCTTGGAGATTTGTTTCTATGTAG
ACATTATGGTAAAAGTTACTCTGAAACTCTTTCTTTAGTTATCTGTTTATTCTGAGCTC
AACAAGATTGAAGTAAGTTTTCGGGAGCTACAGAAATTAATCAAGAAAAGAATAATAGA
GGATTATATTCATTGAAGTGCTGGAGCTCTTCTGATATTATCAATTCTCCTTCATAGAC
ATTTTATAAAGCTCTTTTATGTGAACCTCTTGCTTCATCCAGGCAAG

Sequence 1410

AGGTCTTCGACCCACGCGTCCGTTTTAGATCCAAATAATGACTCATTAAATATAATTATG
TTTTAAGTATACTGAATTTCTGTTAGCTTAAATGTTAATTCTCAGGAATGATTTTCTCA
CACTTTGTGTTGGCTAATAATAAAGCACTGTTTTATTCTCAAACTCCTTTTTCAAAAA
TTAGGGAGAGAGCAGTAGTGATCATTTTATGTGAGCCCTTTGAAATGATGGTGTGAGAG
NGCAGAGAANCAATGGGAGTTTTGATGCCAAAAAGGTTTTTTTGCAGTNAAGTAAAAA
TTTGAATTAGTTGGCATTATAGAGGAACCCCTTTTTGTACCTGGCCCGGGCGGCC

Sequence 1411

AGGTGATTTCAGCAGGTCTGGGGTGGGACTGAGAGCTTGCATCTCTAACAAGCTCCCAGCG
AGGCTGATCCTGTTGCTCCAGGGACCACACCTTGAGAACCCTGGTTGGGCATTGATGAG
GTCAACCAGGAGAAGCAGTGTCCTTAGAACTGGCAGGAGAGAAAGGACAAGGCTAAGAA
ACAGTGAACAGGAGTCAAGTAAATGCAGCTGCCAACAGGCGGGGGTCTTGAGTTCACAT
TCTTGGTTCAGGTGACGTTTCCTGGGAGTCAACAACCCCTTCTCCTATGAAAAAGAAA

Sequence 1412

CCGGGCAGGTGCCTAATATATTTACTCTCTGGTCCTTTACAGGAAAAGTTTGCACACCTC
TGGCTTAGATGATCACCTGAGGCCAAGGAGCCTCGCCCTTGAGCACAAGACTATGTAGTC
AGTAAAGCACAAACAAAATTGGGGCTTTCCCTAGCAAGGTTGGAAAGGCGGAGAAGAAAT
GGATTTGGATAGGTAGTCAACAATGTCTGTTTTATGTTACCACACATTTTCTCGAGAAAT
TTCAATCAGCTCTCTGAGAACAGATTCATCTTTAAATGAATGTTCATAGGTAACAGCAAC
TCATGCATCAATGTTGCAAAGTGAGCTCATTTTCACATTGCTTCAG

Sequence 1413

AGGTCAAGCTTCGNTCCACGCGTCCGGGAAAAACGGGGTTACTAGTAGCCGCCCATAGCC
TGCAACCTTTGCACTCCACTGTGCAATGCTGGCCCTGCACGCTGGGGGCTGTTNGCCCT
GGCCCCCTTTGGTTCCTGGCCCCCTTAAANAACAGGCNGGTTTTATTAAACCCCAANNNN
CCCGGNTTANAAGGGGAATTNAAAAAGGGCCCCGGCTTTNGNAAAAAAAAA

Sequence 1414

NCNGNCCAGGTCTACTCAAGTAGTCTTTACCCCTACTCAAGTAGGGGGTAAAGNGTAGA
ACANGGAGTTTTGATCTGTGTTCAACATGATTGCGAACCATCAATTGAGATAACTCACTA
CCTTCAGGCCAGCCAGNTACATACTTTGAAAAGCCAAGAGTGAAGCANGGTTGATNTTC
ATCCAATTCTGNNCTTTTTGTTAAAGGCANNAATAAGANAGGGTGGNTNCGGGCAATCA
CTTAGCTAA

TABLE 1

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Sequence 1415

AGGTCTTCGACCCACGCGTCCGTTTTAGATCCAAATAATGACTCATTAAATATAATTATG
TTTTAAGTATACTGAATTTCTGTTAGCTTAAAATGTTAATTCTCAGGAATGATTTTCTCA
CACTTTGTGTTGGCTAATAATAAAAGCACTGTTTTATTCTCAAACTCCTTTTTCAAAAA
TTAGGGAGAGAGCAGTAGTGATCATTTATGTGAGCCCCTTTGAAATGATGGTGTGAGAGT
GCAGAGAAACAATGGAGTTTTGATGCCAAAAAGTTTTTTTGCAGTAAAAGTAAAAATTT
GGAATTAGTTGGCATATAGAGGAACCCCTTTTGTACCTGCCCGGGCGG

Sequence 1416

AGGTGTACAGCTTCGACCCACGCGTCCGGGATGAGTTTGTATGTGTAAAGTGCTTGAAA
CAGTGCCTGCCACATACTAAGTGTTGGATAAGTGTTTGTATTAAAAAAGGCTTGAAGG
AAGTGCNCGCCGCGCCCGGGCAGGTCAGATGATTGCAGAATTTATGTGATTACTGGGT
ACTCTAATGGTAAGGAGAAATTAAGACCAGCTAGTTGTTAATCTTAACTTTTAGTCATTA
AGGAGAATTTCCAAGACAAAAGTCAATCCAGCTGCTTACCTAGGAATACGGCTTAGGCT
GAAAACCTCTATCGTCTTAGAAATGGGA

Sequence 1417

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGTAATCCTGTGAGAAAG
ACAGGACAGAAACCACTGTGCCTATTTACAGATACGAAAAGTGGGACAGGTAAAGGG
GCTTGTCTGTAGTCCCATAGCTAGCAGATGGCTGGAGCCAAGACTGAGGCTCGTTCTTCA
ATGCTGAGCCAGGGCTCCTTCCGCTGCACCACAAGAACGCTAGACCACTCGCCACCAGCC
TTCTCATTCCCTCTTCTCCTCATTCTAATCATTTCTAGCTGGCTGGCCTCCACAGAGCATA
GGAAAACAGCCAGGGCCGGGCACGGTGGCTCATGCCTGTAATCTCAACACTCTGGGAGGC
CGAGCCGGGTGGATCACCTGAGGTGAGGAATTCGAGACCAGCCTGGCCAACATGTTAAAA
CCCCATCTCTACTAAAAATATAAAATTAGCCAGGCATGGTGGCGCACACCTGTAATCCC
AGCTACTCAAGAGGCTGAGGCAGGAGAATTGCTTAAATCTGGGAGGCGGAAGTT

Sequence 1418

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCCGGNCCGAGGNNCAAAAGAGAGACAAAAGG
GTTCTCTTGGAACAAGAAGAGTGACTCCAGATGTGGCCTGAATAATTGCCATGTTAAGT
TAATGCAAAAGATCAGAACAGGGCTACATTTGCACAGGCAGTTTCTCTCCGGGCCGTAGT
TTTCACTGATGATCACCTTTCACAGCATTTTCCCCAACCAGCATTTCACTTAGTCTTCTC
TATACCCAGCACCTCCCCCGGCACCCCGGCAAGCCCACTATCACTTCCGACTTCCAACG
TGGCATCCGTGAGATCTGTCCACATTAGGCGAAGCAGGAGAACAAGTGGAGAGCAGCAGGAT
GGGTTTGGAAAGAGCATGCCTCTGGAACACAGCTTCTGGAATTCACATGAGGCCAGT
CCTACAGAGAGCAAGATGCACCCAGGATTTCTTCATTTTCTAATAGATGTGGGAGTGCT
CCATTTTCCCCGACAGCGAATTTCCCCTGAGAAACGATACTAGACCCTGGGTTTGCCAC
CTTGTAACCTTCTCTTATCTNCTCCTTTTCATCCCTAATTCA

Sequence 1419

CCGCGGTGGCGGCCGCGCCGCGGCGAGGTACATCACCCCTGCTGAGGGACATCCAGGACAAGGT
CACCACACTCTACAGAGGCAGTCACTACATGACACATTCCGCTTCTGCCTGGTCACCAA
CTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCC
CAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGG
CTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACC
AACAAGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTCAACATCACCACCTACCATA
TTCCAGGACAAAGCCAGCCAGGCACCAACCAATTACCAGAGGAACAAAAGGAATATTGA
GGATGCGCTCAACCAACTCTCCGAAACAGCAGCATCAAGAGTTATT

Sequence 1420

CCGCGGTGGCGGCCGAGGTACACTGTAAATAGCCTTTACCAAACGTGTTTGACAAGGACC
ATAATTAACATCACTTAGTGAATTGTGATAAAGAAAAAAGCCATGATTTATTCGATGT
GATTGGCTTGTTTTATGTGGCGCCAAGAACGAACCTGTTTAGCAGCTGTAAACCAATGGT
ACGCGGGGGAGGCGAACAATGGCGGAGCTGGGCGAAGCCGATGAAGCGGAGTTGCAGCGC
CTGGTGGCCGCCGAGCAGCAGAAGGCGCAGTTTACTGCACAGGTGCATCACTTCATGGAG
TTATGTTGGGATAAATGTGTGGAGAAGCCAGGGAATCGCCTAGACTCTCGCACTGAAAA

TABLE 1

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TGTCTCTCCAGCTGTGTAGACCGCTTCATTGACACCACTCTTGCCATCACCAGTCGGTTT
GCCCAGATTGTACCTGCCCCGCGCTCTAGAACTA

Sequence 1421

CCCCGCGGTGGCGGCCGAGGTACTTTGGGAGACCACCCCGAGCTATGGTTCCATACACTT
ANACTGCGCCAGCTACAGNTTNATACACTTNGGACAAANTATCTGATAAAATAGAGAAA
AAAATCTTATTTACTATAGCATTACATAAAATTTNTGAGAAAAAAATTAACCAGGGAT
GTAAAAACCTTTACAATAAAAAATAAAATAAAAGGAAGATCCAAATAAATTTTAAAT
ATTTTATGTCTTTGGATTGAAAGAATAAAATTTAATAAAGTGCCATATTATCCAAAGTGA
TCTATAGATTCAATACACTTCCTATCAAAATTGCAGTATTTTTTTCACAGTAATGGAAAT
TCAATTCTAAAATTTACATGAACTAAAATAAACTTTGAATAGCCAAAACAGTCTTGAGG
AAAAGGAACAAGGCAGAAGAATATCATACTTACAATTTCAATCTATATTTGAAGACTTTA
TAGAANTAAAA

Sequence 1422

CGGGCAGGTACGATGGGAGGACAGCTTTGTAGAAAGGACATTATCCAGCTAATAGCAAAC
TTTGTGGATCCCAATCCGAGATTTCCCTTGCTGAAAGACAAGAAAGTATCTCATATAAAA
GTGCTGTAGCAAGTATTTGTATACTCCAGAAATAAGCTTCTGTAATTTCTAGCTGCCAAT
GTGTTCAAGCGTGATGACTCGGTTTCTGTTTCTCTGAACATCAATACTAGGGTCTGTATA
ATTTCAATGCATGCCACCAGCTTCATCAACCTT

Sequence 1423

AGGTACAATCAGAATGCTGCATTCTCCAGCCATAAAGATCGCTCCCTCTTCTTTTCAAAC
ATCCCTGTCCCTCAAGGTCTAGCTCAAGACGGTCACCTTAAGAAAAGCTCCCTTTGTGCA
GCAGTGACTCCATACCCAGGCCCTGCTTTAAACGCTTTATCTGCATTATCTTACTTGATTC
TCGCAATAGCCCTGGGTGGTAGGTGCAATTATTATCTCCAGTTTATAAAAGAAGATACTG
AGGGTCAGAGAAGTTAAGTGACCGGCTCAAGGTGTACATTGAGTAAGCGTTGAAGGGGC
CTGTGTTGGTCTGTCTTGAAGATGCCCCCTACCGACTACACTTTCATGATTTTCTGCC
TTGAACCTGGCCCCATGACTAAA

Sequence 1424

NNCAAACCTCCTATGCTTTCTTGGCATCGGCTACACATCATAGTATTCATTGCCTCCTT
GAGGTCACTTTGCAGCTTGGACAGAACTCATTTACTGACCGGCTCAGCTCATTCTCTGC
CATTCGTTTCATCTCATACTCCTTTGCTTTTTCAGCATTGCTGACAATGTCCCAAGCTGC
TCGCAAAACCTTGAAGGCCTCCTCAGCCCGGGGATGATGATTTTGTGAGGATGAACCAT
CACTGCCAGCTGTCTATAG

Sequence 1425

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTGAAGTGAATTTCCC
AATGGCTCTTTGTGCAGCCGAGCAGCTGTTGAGACTTATGAGCAGACAGGAAGTCCA
GAGGGCAATGGTGTGTTTAACTGGCATCTGTTTAAAGGCCTTTAACACGTGAATCGTCTG
ATCACCCATTTGCAGGATGTCTTGAGTATACACATTCAGCTGCATGTTTGGATCCCCACC
AGCTGTGCTCAGAAACCCAGAGTGACTTCTACGACAGACAGCACTTCACAGGCATCGCT
GTAGGACTGCAGCTGTCCACTGATGGCACTAATGACCGAGCTGGGGAGGGAGTCTGGGA
AATGAAAAGCAGGAGAGGGATGTCTGTGGGCTGGGTTTCTGGCATCTCACCACCTGGTAA
GAGAGCCGAGCCCCCTTCACTGCCCCAAGCCACATGCG

Sequence 1426

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTGGGCCAAGGCTGCAAT
CAGTGATTGAGCCGACTGCTCTTTGAGTCCAGATGTTGATCCAGTTCTTGCTTTTCAACG
AGAAGGATTTGGACGTCAGAGTATGTCAGAAAAACGCACAAAGCAATTTTTCAGATGCCAG
TCAATTGGATTTGTTAAAACACGAAAATCAAAAAGCATGGATTTAGGTATAGCTGACGA
GACTAAACTCAATACAGTGGATGACCAGAAAGCAGGTTCTCCAGCAGAGATGTGGGTCC
TTCCCTGGGTCTGAAGAAGTCAAGCTCGTTGGAGAGTCTGCAGACCGCAGTTGCCGAGGT
GACTTTGAATGGGGATATTCCTTTCCATCGTCCA

Sequence 1427

AATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACATCACCTGCTGAGGGACATCCAGGAC

TABLE 1

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AAGGTCACCACACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTC
ACCAACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTG
GACCCCAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGG
CTGGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTAT
CAACCAACAAGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATCACCAACCTA
CCATATTCCCAGGACAAAGCCCAGCCAGGCACCACCAATTACCAGAGGAACAAAAGGAAT
ATTGAGGATGCGCTCAACCAACTCTTCCGAAACAGCAGCATCAAGAGTTATTTTCTGAC
TGTCAAGTTTCAACATTCAAGGTCTGTCCCCAACAGGCACCAC

Sequence 1428

AGGTACAAATAGATACCTTCAAGGAGAATGAAAACGGGGAATATACTGAGCACTTACACT
CGGCCAGCTGCCAGATCAAAGTTTTCAAGCCCAAAGGTGCAGACAGAAAGCAAAAACGG
ATAGGGAAAAAATGGAGAAACGAACACCTCATGAAAAGGAGAAATATCAGCCTTCCTATG
AGACAACCATACTCACAGAGGTAAAAAGATTTCTTTTGGTGACAATTTAGTTTCATAATT
TTAATCTTAAAAATTCACTACTTCCAACTGGTCAGAATTTACTTCTCCTAAGCCTTGA
GGGACACAGTATCACATGGATTCTGTGTCCAGCGGCCTTAACAGGAAGATTGCTTTAGAA
TTTGGCACGAACCATGCCACTGTCTCTGT

Sequence 1429

NCNGNCCAGGTACTCNNNNACANTGNAACTNNTCANGNGCCCATCATTGCTGGATTTGT
ATTTAACATTATGTTTCACCCAGACAACAGCTCAGAGAACTGGGCAATGGCTGCTNATGT
GTTGAGCCGGGGCATAACAGGATGAAGAGGGACAATGAGAGGGAATGAATTCATTCTANA
CACCTGAGTTTGAGGAACCTATGGAATGTCCAGGAGGCAACTAAATGAAACAGCCTGT
GGTAGACAGAATAATGGCCCCAAAGATGTCTACAGCCTAATCCCAGGAGCCTGTGAAAAT
GTTCCCTTCGCATGGTAAAGGGATGTGGCAGATATGATTAAGCTAAGGATCTTGAGATGG
AGAGTTTATCCAGGATTATCCAGGTGTGCCAGTATAAT

Sequence 1430

AGGTACGCGGGACACAGGGTCCTGTGCAACANGGNGGACTAACAGTAACACCGCCACGCC
GGCAGCAAAGCTCATTTTGGTCCCCGCGGTTCTCTTTCTCTTTTAACTCCTTCCCT
CTTTGCGGATTCTAGAACGGAACCTTTTTTTAATTCTTCCCAGTAGAAACGTAGGAACAA
TTTCGTGAACGCAATCNGGAGTGCCCAACATGGC

Sequence 1431

AGGTACCCCTGTTTAAACAAGGGGTAGGGGCCCTTCTGAGACTGTTTCCTCTACAGAGTAAG
GGTTCGTTTCAGCCTTTTCCGTGGCCTGCCAAGAACTCAACTCCATGTTCCCTCACTTCCT
GTAATTGACCTTGTCCAGGACTTTCTGACCTTGGAGAATTCACCTTGCTCTTTCTGCTG
CTTCGTGCATTCTTCCACCAAATGTCTTAACTGACTGGGCTCCTTTCCAACTCAAGGGC
TTTGCCAAATGCCACCAGCTCAGGGAGGCCTTTNCTGGCCATGACACTTGAAGTTGCAAC
ACTCCCCCGCAGTCTCCCGTGCCCCAGATGTAAGTTCCATGAGGGCAAGCCCTGTGCTTT
TACCACCATATCCCCAGCATCTTGAGCTGTGCCTGGCCCAAGAAATATTTGTTGAATGAA
TGAATTTAAAAGGGGATATTCATGANGGCTTACACATTCTCAATGGGT

Sequence 1432

GGGCAATTTGAGCTCCCCGCGGTGGCGGCCGCCCGGCAGGTACTTTTTTTTTCTTTTT
CTTTTTTTTTTTTTTAAAGTTTTTGGGATCGTGTCTCACTCCTGTTGCGCATGCCTGTA
GTCCCAGCTACTCAGGAGGCTGAGGCAGGATAATTGCTTGAACCCGGGAGGTGGAGGTTG
CAGTGAGCCGAGATCATGCCACTGCACTCCAGCCTGGGCAACAGAGTGAGACTTTGTCTT
CGGAAAAAAAAAAAAAAAAAGATTTGGCGGATGAAAAAACCAGAATGAAAATAGCTNGAA
AACTCANCAAGCAGGAAGCTCCCCTTCTCACCCTTTTGTTCCTTGCCGATAGAATCAGT
CACTATTAGAAAAAATGAAAGACGCTCTGTTTAAACAATGATGACAGCAGTACCT

Sequence 1433

GCGGTGGCGGCCGAGGTACTTCCCTTTTAAAGAGATGAGTCACCGCAACTGAACTTCTCT
ATTTCTTTCTTTCTGATTGTTCTCCAGAATTAGGACTAGTAACAGTCCTGAANNCTTG
TNTTTCCTTATCTAGAAACTCAGTATCTTCCCTTCCGTTTGTCTTAAATATTAGTACA
CGCTTTCTCAAGCCTAGCCGATTAGAAGGGGCTGCCGGGCTTCCACCACACCTCATCGAG

TABLE 1
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GNAATGGTTTTNTGGNNAAAAAGCCCATGGAAATACTGAGCCCATGCCNCTCACGTTGNA
AAAGCCCCGTTCCCTTGCC

Sequence 1434

AGCTCCCCGCGGTGGCGTAACCTATCTCATTITAGATNAGTTTGCAAAGAGAGTTGGTGG
CTAAGGCCATAGCTTAGCCTCCTGACCCCTACCTTCCCACGTTCTTTCCAAGAGATTCTC
CTCAGGAATAACACTTGCAAGGGAGTTCCTGATGAAGTGGATTCTTGTTATTCTAGGAAT
AGGCCTACATGGTGCACCTGGCAATGTGAGATTATACCTCAGCATTITCAAAGAGCATAAA
AATCTAGAGCTGGGGGGTTTAAACATGACAAACCTAATTTAAGTAGGCAGACAAATAT
TTAAATTTTCCCCTACCCTTGTTTCTACATCGGTCCATTGAGACTCTGCACCATCTGGT
TGGGCAGGTGCTACTGTGGAAGATCTTCGTTTTGACTACCATTTGGTGATTCTTGCTTT
AAAGTCTCAATATCAGTAACTGAACAGATTNCCACCACCCCTTGTTTATAAATATCAC
CCTTAATTAGTTTAAAGTTTCAATCTCCCCATCGGAGGCTAGTTCTGGTGGGTGAGCATG
TACCTGCCNNGGCGGCGCTCTANAACCTAAGTGGATCCCC

Sequence 1435

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTNTTTTT
TTTTTTTTTTTTTTTTGGAGCCAAATTGTGTGCAATTCCTACTGGGAAACACAGTGGCC
AAATCCTTTTGAATTGTTTCTTCTAGAGACTTTAACTCTTCTGACTGCAAATCTTAGTG
TCCTGTGAGTATTAGTTGATTAAATTAACCTTGTCTGCTTAGTGAAATACAGCCAGCTATAG
GTATCTTCTGGAGTAGCTCAACACAACCTTTCTCTTGTCTAGAGTGACTCTTGCTAACAGA
ACCCAAAGATGCGCACATATACCCACAGGAGCTGGAGGTCCCTCGCATGCTCCTCTCGTG
CCAGCCTTTGCCTTACCCTTCACTCTCTCCCTCCAGGAGCCGTCGGTACCTCGG

Sequence 1436

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGATTTGTCTTGCTC
ACCTCTTACCAAATCCAAGAATGGTTTCTATCCAGTGAATGGCAAATTCATCTGATAGGT
AAGGGAATAATGGGTCAAATGGTAGCAAACACTTCTTTCAAATTTCTACTAAAAGACTT
GCTGTTGTTTTTCTTATAAAGGGGCAATTTCAACATACATCTTTTAAAGGAATCTCT
AGAAATTTGAGTGACTTTTTGGCCATAATCCTGTTTGATATATTTTGGTCAGCTGCTCA
AAACAAACATTCTCCTTGTAAGGTTATCTATCTGAAAGATACTAATTCATTTAAAGCAGC
TGCAGGTGAACAACCTAAAGATGACATGATTTGGGAGAAGAGGAAGGCAGATTACTGAAC
TGACAAGTGACCCAAAGCATAATTAGGTTTGTGCACATGGTAGCATGGAGGTTCCACACC
TACCTTCTACAGCGTATTAATAAAGAATATTGTCTTTGAAACATCTTCTAGCACCTTTT
TAATAAAACAAATTTCCCATCTTCAATTCTATTTTTTCCCAAATCTACCTTTAAAAAA
TTGT

Sequence 1437

CCGCGGTGGCGGCCGAGGTACAATAAACAGGGAATGAGAACTATTTACATGGAAGTTTCT
TTCTCATGATGCGGTGGAGAAGCCTCGGCCACTTGGTTCTGCCAGATGTTCTTGGGGTTA
CTGTAAATGGGAAGGACAGGCAGAGCTAAACAAGGTAGGAGAATCGCCCCCTTTTTTGA
ATGTTTAAAGAGTTTGCTGCAGTATGCTGCATTCCATGTGTGCTGCTTACGGGAGCCAGG
GAAACTGGGATTTCCACTAATTCAATTGTAATACTTGCGGGGGACCCTGGAGTTTTACGTA
ACATTTTGATTTGGGAAAAAANANANTGTTCTGCCCCGGCG

Sequence 1438

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTGCCAGGC
ATGCTCCTGCCTTGGGCAGAGTGATATGTGTGAGTGCACCTGCCCTTCCCACAGCCTAG
AACGTTCTCCTCCAGACAGCACATATGGCCTGCTCTCTCACTTCTTAAGGTCTTTATT
CAAAAGTGACTTTCTCAGTGAAGCCCTGTCTGCTCACCCTGCGTAAAATTTAGCTCTTC
TTTCTATCTCTTCCCAGATTTTTTTCTCCTTCATGTTGTTGGTGTCTAAGGTTTAT
CATCTATTTGCTAATGGTCAGTAGAATGTAACCTCCACGTAAGCAAGGAGTTTTGTCTG
TTTTGTTTATGTCTATGTCCTTAGTGCCTGGAGCATTCCCTAGTATGCAGTAGGTGCTCA
ATAAATGTCAGTTGGATTAATGGCTGAAAGAAAGGTCACCGCTATAAGGATGGAGTCAGA
GAACAAACACAGTTAATTCCTGGTCCACTGTTTTGCTTCCACTAAATTGTATTTGGTCT
ACGGCTTCTCGCTTGCCCTGGAACCTGCTCAGAACACTGCTCCCTTCTCCTTCTCTT

TABLE 1
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CTCCCTCCGGATAAATTCT

Sequence 1439

CCGGGCAGGTACCGCGGGGGGCCGTGGTCAGAGCGAGCTTCGGAGAAGCAGTGGTGGGTT
CCATGTGATGGTGGAGTAGGAGGCAGGTCTCCGCGGTTTCATCTGTGTTGCTCTAAATGAC
ACTGTTTCATTATTTTGATGGCTGGAGAATATTTCTAAGTGTATGTATATGAAGAAGTT
TCTTGATCTCTTTATCTGTGGATGAACAGCTACTTTGAAACATATGGTACCTCTGTGGTC
AGACCATTTGCCAAGCTTGTGAGGCCTCCTGTTCAAGTATACGGTATTGAAGGTCGCTAT
GCCACAGCTCTTTATTCTGCTGCATCAAAACAGAATAAGCTGGAGCAAGTAGAAAAGGAA
GTTGTTGAGAAGTAGCACAAATCCTGAAGGAACCCAAAGTGGCTGCTTCTGTTTTGAATC
CC

Sequence 1440

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCANGGTACGCGGGTGCT
TTCATAGCCGCGGACACAACCTGGGCCACAGTTAACCGAGGAGGAAGGCAGAGCGTGCT
GAGCAGAGCACCAAGGAAGAGAGCTCGGCTAGCCGGAAGGTCCGAATGGATTATTTGG
TGAGGCCAAGGAACCCACTGCCTCCACGGTGTTCTCCAGGAGGCTCCTCCCTTCACTAA
GGCAGCAAGGAGTGCAGTGGTGAGGGGAAGAATTGTTGTCATCCTTTCTCTACGACTCCA
AGAGAACTTTATACTGGAGGAAGAATATTCTACCACTTTGGGATGCTTCCAAAGAAATG
GGATACCAAGGAGTGAACCTTCAGGTCATTGGAAGTGGCCAAGCTGGAGGCGACCTATGG
AGACATGACCTTCAGTTCTTCTGAGATCGATAAAGCAAAAAAAAAAAAAAAAAAAAAAGT
ACCT

Sequence 1441

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGATATTGTCAATGCGCAACATGGAGAG
ACTTTAAACAAATGCTAGGGATTAGAGTATAGATCAGATAGCTGGCAAATCTATAGGAA
GGGAAAAGTAATTTTAAACACACAGCATTGTTCCTGCTGCTCTATCACAATAGCTAGG
TTTTTAAATAAGTAGGCTTTATACCAAGCCATAAAAATGAATTGCTGGGGCTCTTTGGGA
CTAGGGAAGGCGGGAAATTTTAGATATTGCTGTTGGCTTAGTGAAAATGCATGCTTACCC
GGTCACCTGTGGCTCCAGCAGGACCAGGGGCACCTACAGCACCAGGAGCACCTAGTACC
T

Sequence 1442

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACCTTATTACATA
TGATTTTTATTAGTTTCTGGAGGCAAATTTAATTTTATTTTAAAATCAAATCTATTTT
AAAAGAAATAGTTCTCAAAAAGACAACGATGACTGGGTGTGGTGGTGTGTGCCTGTAGTT
CAGGCTGCTCGGGAGACAGAGGCAGGAGAACCCTTGAGGCCAGTTCACTCTAGCCTGGG
TAACATAGCAGGACCCTGTCCCTTAATAATAAAAAATTTAA

Sequence 1443

CCGCGGTGGCGGCCCGCCGGGCAGGTACTAGGGTGCTCCTGGTGCTGTAGGTGCCCTGG
TCCTGCTGGAGCCACAGGTGACCGGGTAAGCATGCATTTTCACTAAGCCAACAGCAATAT
CTAAAATTTCCGCGCTTCCCTAGTCCCAAAGAGCCCCAGCAATTCATTTTTATGGCTTGG
TATAAAGCCTACTTATTTAAAAACCTAGCTATTGTGATAGAGCAGCAGGAAACAAATGCT
GTGTGTTTAAATTAATTTCCCTTCTATAGATTGCCAGCTATCTGATCTATACTCTA
ATCCCTAGCATTTGTTTTAAAGTCTCTCCATGTTGCGCATTAAACAATATCCTAATGCACT
GAGGCTTCTCAAAGCCTTCAATTATTACCAAAAAAAAAAAAAANNTTNNNAGGTACCT

Sequence 1444

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACAAAGACCAAT
TCCTTCTTAACCTGGATTCCACTGTCCTTGGTGAAACTACTTTGATGGAACCTACCAGA
TGCTTTATCTTTTGGTTAAAGGAACCTATACCTGTNGAAATTCACACTGCCACAGNGATAT
TTGTTTCTTTCCAATTATNTGTTGCAACANAAGATGACTTTTATACCTCTCACAATCTGG
NTAAAAATCTTGCTTGTTCCTAAAGATACCAAGTGACAAAATCCGTATCAGCAAAATAA
GAGGGAAGAGTCTGAGGAGGAAGAGATCCATGGGATTCATAATTGAAATAGAGATTGGAG
ACCCTCCTATTCAAGTTCATAAGCAATGGCACCACAGGTCAGATGCAGTTATCTGAACTCC
AGGAANTTGCTGGTTCTCTTGGACAAGCTGTNATTTTAGGAAA

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AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGAGAGTCACTCCTGCC
TTCACCATGAAGTCCAGCGGCCTCTTCCCCTTCTGGTGCTGCTTGCCTGGAACTCTG
GCACCTTGGGCTGTGGAAGGCTCTGAAAAGTGAAGTTGGAGTCACTCTGGTCTAATCTG
GGCTGCAGGGTCAGAGGTGGGGTCTCCTTGTGGTGTGGGTGTGTCCCCTTCTGTAGGCTC
TGATCCCTCAGCTTAGTTTCGGGAGACCTCCCTGAGGGTGAATACATGTCTGGCTGGGC
TCCAAGGTTTGTGTGGCAGTTTGAGCTTCTGGAAATGCTTCTCTATGCAGCCATGCTGT
CAGCCCAGGTCCCACTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCATACTNTGCCT
TCTTTCTTTCACCTGTCTGCGACTCTTCAAAAAAAAAAAAAAAAAAAAAA

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTCTTAATCCAAGACAA
AAGAATAGCTCCTTTGAGAGTTCTCATCTTTCTTACCCCAGCCTTAATGGGTATATTC
CTTTTCCCAGGTGTCCAGAGTTTTCCAGAATTGTCCCAAGGCTCAGTCCACACCAGTTC
TTCTCCAGTGTGCTCTCCTGAGAGGCCAGGCACACTCAACAATTATCTAGATGAGTTCCC
ACTTCTTTCCAAGTGAAGGTTCTGCTATCCTAGCATAGTCAGAATAAGTTAAATTATGTC
TCTTAAGAGGCACTGTTCCACTCCTTTTCAAGGNGTGTGGCATATTTGAAATATGTGACT
TAAAAGTCTACAGTCTCTTACCAAAAAGCCTTGGGCCAAATACATGTCAAAATTCAGAATT
TTNCAGATTTTAGAAAAGTGACCCATATACCATACATTGCA

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATCACCCTGCTGAGGGACA
TCCAGGACAAGGTCACCACACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCT
GCCTGGTCACCAACTTGACGATGGAATCCGTTGGTCACTGTCAAGGCATTGTTCTCCT
CCAATTTGGACCCAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCAT
TCCATTGGCTGGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCAT
CAGTTTATCAACCAACAAGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATCA
CCAACCTACCATATTCCCAGGACAAAGCCCAGGCCAGGCACCACCAATTACCAGAGGAACA
AAAGGAATATTGAGGATGCGCTCAACCAACTCTTCCGAAACAGCAGCATCAAGAGTTATT
TTTCTGAC

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAATTGTCGTTTTATTCCCT
CTTATTGGGATATCATTTTAAAAACTTTATTGGGTTTTATTGTTGTTGTTTGATCCCTA
ACCCTACAAAGAGCCTTCCTATTCCCCCTCGCTGTTGGAGCAAACCATTATACCTTACTTC
CAGCAAGCAAAGTGCTTTGACTTCTTGCTTCAGTCATCAGCCAGCAAGAGGGAACAAAAC
TGTTCTTTTGCATTTTGCCGCTGAGATATGGCATTGCACTGCTTATATGCCAAGCTAATT
TATAGCAAGATATTGATCAAATATAGAAAGTTGATATTCAACCTCACAAAGGGCTCTCAA
GTATAATCTTTCTATAGCCAACTGCTAATGCAAATTAACATATTTCATTTTAACATGA
TTTCAAAATCAGTTTTTCATACTACCCTTTGCTGGAAGAAACTAAAAATATAGCAAATGC
AGAACCACAAACAATTGAATGGGGTAGAAACATTGTAATATTTACTCTTTGCAAACCC
TGGNGGTTATTTTATTTTGGCTTCATTTCAATCATTGAAGTATATTCTTATTGGAAATGT
ACCTGCCCGGCCG

CCGCGGTGGCGGCCGCCGGGCAGGTACATCACCCCTGCTGAGGGACATCCAGGACAAGGTC
ACCACACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAAC
TTGACGATGGA CTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCC
AGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCCTGAATGCCTCATTCCATTGGCTGGGC
TCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACCA
ACAAGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATTACCAACCTACCATAT
TCCCAGGACAAAGCCAGCCAGGCACCACCAATTACCAGAGGAACAAAAGGAATATTGAG
GATGCGCTCAACCAACTCTCCGAAACAGCAGCATCAAGAGTTATT

CCGCGGTGGCGGCCGAGGTACAAATTGNCGTTTTTATTCTTATTGGGATATCATTTT

TABLE 1

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AAAACTTTATTGGGTTTTATTGTTGNTGNNTGATCCCTAACCTACAAAGAGCCTTCC
TATCCCCCTCGCTGTTGGAGCAAACCATTAACCTTACTTCCAGCAAGCAAAGTGCTTG
ACTTCTTGCTTCAGTCATCAGCCAGCAAGAGGGAACAAAAGTGTCTTTTGCAATTTGCG
GCTGAGATATGGCATTGCACTGCTTATATGCCAAGCTAATTTATAGCAAGATATTGATCA
AATATAGAAAGTTGATATTCAACCTCACAGGGCTCTCAAAGTATAATCTTTCTATAGCC
AACTGCTAATGCAAATTAACATATTTTCAATTTAACATGATTTCAAATCAGTTTTTCA
TACTACCTTTGCTGGAAGAACTAAAAATATAGCAAATGCAGAACCAACAATTCGA
ATGGGGTAGAAACATTGTAATATTTACTCTTTGCAAACCTGGNGGTATTTATTTTGG
CTTCATTTCAATCATTGNAGTATATTCTTAT

Sequence 1451

CCCCGCGGTGGCGGCCGNGGNACAAATTGTCGNTNNTATTCCTCTTATTGGGATATCATN
TTAAAACTTTATTGGGTTNTTATTGTTGNTGTGGGNTCCCTAACCTACAAAGAGCCTT
CCTATTCCTCGCTGNTGGAGCAAACCATTAACCTTACTTCCAGCAAGCAAAGTGCTT
TGACTNCTTGCTTCAGTCATCAGCCAGCAAGAGGGAACAAAAGTGTCTTTNNCATTTTG
CCNCTGNGATATGNCATTGCACTGCTTATATGCCAAGCTAATTTATAGCAAGATATTGAN
CAAATATNGAAAGTTGNTATTCAACCTCACANGGGCTCTCAAAGTATAATCTTTCTATAG
CCAATGCTAATGCAAATTAACATATTTTCAATNTAACATGATTTCAAATCAGATTTT
CATACTACCTTTGCTGGAAGAACTAAAAATAT

Sequence 1452

CCCCGCGGTGGCGGCCGAGGTACAAATTGTCGTTTTTATTCCTCTTATTGGGATATCATT
TTAAAACTTTATTGGGTTTTTATTGTTGNTGTNGGNCNTAACCTACAAAGAGCCTT
CCTATTCCTCGCTGTTGGAGCAAACCATTAACCTTACTTCCAGCAAGCAAAGTGCTT
TGACTTCTTGCTTCANTCATCAGCCAGCAAGAGGGAACAAAAGTGTCTTTTGCAATTTG
CCGCTGAGATATGGCATTGCACTGCTTATATGCCAAGCTAATTTATAGCAAGATATTGAT
CAAATATAGAAAGTTGATATTCAACCTCACANGGGCTCTCAAAGTATAATCTTTCTATAG
CCAATGCTAATGCAAATTAACATATTTTCAATTTAACATGATTTCAAATCAGTTTTT
CATACTACCTTTGCTGGAAGAAA

Sequence 1453

GAANCCCCCTTTNGACGAANANNCGCGAATCGNGAGCTCCACCGNGGNGGCGGGCCCGAG
GGGGACNANGANTTTTCTTGNNCNTTTTTTTTNNAAAAACNGGNGACTATTTAATCCATC
TAAAAATACAAATCAGGNAANGGGGGGAACCATAGGAAAAATCCTCCACCTNTAACAGAG
CCGAAGNTACNGGGCTTTCTGCTTGCTCCAAANAAATCCAAAGGGCTTGGATAGTTTGN
GGAANGGGGAATTATCTGTGTCTTCAAACCTAACTCCCAAGGATACCTCAAAGGACATTAA
AGGTNTACCACCACCATTTCTGGGGGAAGAAAAAGGGGGGTTTCTTGCCCTTGCTTGAAA
AGCCTTANAAATNGGGGGAAGCCTCAAATNGCCNTTNGGGGGNGNAAAAAGGGGNNCCC
TNTNAATTTTTTNNAAAAAATTTGGGTTCCAAAAAANAACCCCCCTTTNGAAAGG
GANCAAANGGGGGGGGGGGCCCCCTNCCCCNAAGGCNAAGGGGGGGGGGCCCNNTTNGGGG
GGGCCNCNTGGGGGGNNGGNNCCCCAAAAACCCCCCTAAACAAANNTNGGGGGCTGGGC
CNTAANGAGGAGGGCCCCNCCAGAGCCCAAAANTTNGGGGTTTNNACCCCANNNAAAT
TTTGGGGGGGTNTTTTTTTTACCCCNNTTNNNGNCCCCNCCCCCTTGGGGGGGAAAA
AAAACCTTNAAAACCCCNNTNTTTNAAAACCCCCCGGGGGGGG

Sequence 1454

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGGCAGGTACTTTNTTTTTTTT
TTTTTTTTTTTATACCAGATTTTAAGGAAAGACTGCTTGCTTCTGANAAAGAATTCTCGG
AGTTGATTCTCTGCTCCATTTGCTCCTTTCTCAACCTCTTAGTCCTCGTTCTCTGCAGT
AAGAAGCTAGTGACAACTGGAATTTAGCTCCAGNGGGCTTTCTTCCGGGTGGNGCCTGG
ACAGGCTGCTCCTGCTGCTAAGGCTTCTGGAGCTGTTATTGAAGATGTCAGCTTCTGCCA
CTGNGGTCTGCTTTTTGGAGTCTGCATTGGTTTTGCCTCGATCTCTATCATTCTTCTCAT
TATTTTCATGAATGAA

Sequence 1455

CGAGGTAAGTACCTCGTNTGTCCCTTCCCCTNACCGNTCCCCACAGCTTTGCACCCCTT

TABLE 1

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TCCTCCCCATACANACACNNNCCATTTTATTNTTTGGGCCATTACCCCATACCCCTTATT
GCTGCCAAAACACATTGGGGGCTTGGGGGGGGGCCAAGGGGCCTTGGGCATGGGACCAA
GGACCACCTCCCCCTACCCATATCCCTCCCGTGTTGTGGGGTTTNGGGGAAAAAACCT
TTTTGGTTTTTTTGGGGGGGTCTTTTTTTTCTCGGAAATTAANAAAAAAGGATT
NCTTACCTACAAGAGAAAANAAAAAAGGGTACCCTTGGCCCCGGGGGCCGGGGCC
CGGCTTTCTTAAGGAACCTAAGGTGGGGAATTCCCCCCCCGGGGGCCTTGCCAAGGGAAA
TTCCGNATTATTCNAAAGGCCTTAATCCGGAATNACCCCGGTNCGNACCCTTCGGAGG
GGGGGGGGGGCCCCGGGGTAACCCCAAGCTTTTTTGGTTTCCCC

Sequence 1456

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGAGATAAGACCC
TGAATGCCTCATTCCATTGGCTGGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAG
AAATGGAGTCATCAGTTTATCAACCAACAAGCAGCTCCAGCACCCAGCACTTCTACCTGA
ATTTACCATCACCAACCTACCATATTCCCGGGACAAAGCCAGCCAGGCACCACCAATT
ACCAGAGGAACAAAAGGAATATTGAGGATGCGCTCAACCAACTCTCCGAAACAGCAGCA
TCAAGAGTTATTTTTCTGACTGTCAAGTTTCAACATTAGGTCTGTCCCCAACAGGCACC
ACACCGGGGTGGACTCCCTGTGTAACCTCTCGCCACTGGCTCGGAGAGTAGACAGAGTTG
CCATCTATGAGGAATTTCTGCGGATGACCCGGAATGGGTACCTGCCCGGGCCGGCCGCTT
CGGCTTTAGAAGTAGTN

Sequence 1457

GGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAAGTCCAAATTTTAAGGAAAATGA
GTCCCGCAATGAGTTTCCTCATGCTTCGCCTGTGCGTGGACCGGNACAGTTCTGGGTGTG
ACTGGAGCAGGGCTTGTCTCCTTCTTCAGAATCACTTTCAGGGGTTGGCAAAGCCGCTC
CCATCCACGTACTCTCTGGACACAATAATTTTGGCCTATTGCCATCAAATGCCATTTTC
CACTGCTGGAAGCAATGTCAAAAAAGGGCTGGCCCCAAAAAAGACCCAGAGCTGTCAATA
CAACACTGGAGACAGATGCAACTGAATAAACCCCTGTTTTACCCAATTGCACTATTTGGTC
CT

Sequence 1458

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTGGAACAGGGATAA
GTTCTTGGATAAGGNGCCAACATACCTATAAAAGCTGATTTTGGAGTAAATTATTGATTC
TAACATATGTAATGGATTTGGTGTGATAATTTTCTGATCTTTAACTATAAGTGACTTTTT
ATTCTCCACCAGAAAAGATAAATGACTGAGAATGTAAGTCTGCGCTCTGATTAACACAAT
GGAGAAACGGAAAACTATCTCTGTTAAAACTGATTCTGTCACTTCTCTGATATCAAA
TAAGAGGAAGGAAAAATAAATCTTTTGTGTGATAGATAAAAAACATACCTGAGGCCAGGTG
CAGTGGATCACGCCTGTAATCCCAGCACTTTGGGAGGCCAAGGCGGGCAGATCAGCTGAG
GTCAGGAGTTCGAGACCAGCCTGGCCAACATGGNGAAATCAOGTCTCTACTAAAAATACA
A

Sequence 1459

NGGGCGAATTGGAGCTCCACCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGCACTC
AGGGAGCTCAGATTTTGGAGACAGTAGCTGGCCGATGCTCCAGCTGAATAAAGCCCTTCC
TTCTACAAAAAAGAAAAAGAAAAAAGAAAAACAGGATATCTGAAATTAAGACTGCAGGAT
GGAGTAGTTTTCTGAAATGACAGGGTCCAAGGTGTGACNCACCGGGACCAAGTGGCTGA
ACTGGAATGAAGTTAAGAAGCCAGTAAGAAAAACATCNCGGATAATATGGTGGATCAGTTC
AACAGNAATGACATTATTTACCCATGGTCCCCAAAGGGAGGGAGATGACTGGAGNATTT
CAAATCTTCAAGGCAAGCCCTCAATGCCAGCCAGGATTTTAANGAGGGGCCCTATTG
TTGTTCCCAGAAAGGAGGACTCTGNGGCCAAACCGCCAAGAATGGGATTTCAAGAAATTT
ACTTCAAAATTCCTGTGAGGATTTCTTTAACCCCTGGGTGGGGCTTATACCCAAAACCCCA
AAAAAATTTTAAGCCAGCCTTCNTACTTTTTGGCTTAATTTTTCTCCCTAAAGCCCCAA
CCCTTGGGCNTTTTTTT

Sequence 1460

ATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTCAGAAATCCTTCCCCGAATT
TACAGCACAGGCAGGATGACCTAAGAGGCAGTTTACTTCCCTGAGACCCACAGTTGGGCT

TABLE 1

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GTTCTGGAAACACATCTGTGAATCATAGCCAATTGCCACAGAGAAAACAGAACCAAGCCT
CCGGTGAGGCCACTCCACCCCAGAGAAAGTCTGCAGAATTCCAAGGACTCGGATTGGATGT
TCAGAATTCAGCAACTGGAAAGTCCTTAAAAACAAACAGGCCAAACCAATCAATATTGC
TGTTTCTAGATGTCCCTTCTGTGGTTGAGCTAGTTTTACAGAGATAAATATATTAAGACA
AGGAGGTGGGGGTGTTATATGATCAATGATAGCCATTTTGAAAGAGAGGGAGGAGTACTT
TTTTTTTTTTTTTTTTTCCAAGCACGTGCCACTTTATTGAATGACACTGTAGACAGGT
GTGTGGGTATAAAGTGTGTATCTAGGGGCAGGACCAAGGGGGCAGGG

Sequence 1461

AGGTACGCGGGGCTCAAGAATAAGCTGAAATATGGCCAGACTATCAGGCCCATTTGTCTC
CCCTGCACCGAGGGAACAACCTCGAGCCTTTGAGGGCTTCCTCCAANCCTACCCACTTTGG
CCCAGTCANACCAAAAAAGGGGAAAGNAGGCCTGGCTTCCCCTTGNCAACAAGGGNATTA
ATTCCAAAAAGNCCTTCTGGTTTTTGGNTGGTNCCTTGAAGGGNAAGGNNAGGAAAAA
AAAAGNCCTTGNAACCTTCGGGGAAGGGGNAGGGTTCCTTAACAATTCAAAGGAAATTG
GGGGGGGGAATAAAGGAAAAANGGGGCCAAGNCCTTGGTTTGAAGGAAGGNAGGTATG
GCTTCAAATTAATGGCCCCCAANGGCTTAATTGAACCAAAAAAGGNTCAAAAGGGGAA
CAATTCTCAANAAGGGGTGGGGTCCACCCCCCCTTTCGGGGTTTTCCCCTTTTGGTT
ACCCCTTGGCCCCCGGNNCCGGGCCCGCCTTCTAAGAAANCNTAGGGTTGGGGNANT
NCCCCCCCCNGGG

Sequence 1462

GCGGGCAGGTACATGGATGGGAGCAGCTTACCAACCCCTGCAAAGTGAAGTCTGAAGAAG
ACGACAAGCCCTGCTCCAGTCACACCCGGNAAGNCTGACTGNNTNCCACCGCNACAGNCT
GAAAGGCATTGAGGGNAAAACCTCAATTCNTCGGGGNACCTAAATTTTTCCCCTTTAA
AANATTTTTAAGTAACCTTTGGCCAACCAAGGTAAGGGGGAACTTTTCCAAAACNTNG
AACCCTTTCCCTCCAAGNATTTGNAAGGAAACNTGTTNTTCCAGGTTAATTAATTAC
CNATTTCCAAAAGGTTCCAACCTTTNGGAANGGGTTAAGGGGGAAACCAANAAAAAATT
TTGGCTTAACCAAGGTTCCCTNAATTAATAATTTTAAAANGGGGGTTTTTTTTTTTA
TATAAAAAAGGNGNTGGTNTNANNCCCCCTTTTNGGNGGTCCCCCTTTTTTTTTTTNAA
GAAAAANCCNTAAGGGGNGGGGAAATTCCCCCCCCCCCCGGGGGNNCCNTTGGGCCAAA
NGGGAAAAATTTTCCNGNATTTAATTTCCAAA

Sequence 1463

AGGTACGCGGGGAGGCATTGAGGCAGCCAGCGCAGGGGCTTCTGCTGAGGGGGCAGGCGG
AGCTTGAGGAAACCCGCAGATAAGTTTTTCTCTTTGNAAAGANTCCNCNTTTAAAA
TAACCAAAACCTTACCTTTAAAAAATAATTANGTTCCAAAATTAANGGGNTTTTA
ACCTTNAAGGNAATTAATTTTTNGGCCTTTTAAANNCCGGGTTTTTAAAAGNGTTT
TTTTTTTTTAAAACCCGGTTTAAAAATTTTTTTTTTAAAAATTAAGGCCCTTTTTTAAA
AGNNAATTTTTTTTTTAAAGGNGANGGAAAAAAATTTTTTTTTTGGNANAAGTGAAA
ANCTTTTTTTNTTAAAAAATNTAAANNTTNTTAGTCCCTNNTTTTTNTAANAGGNGGG
NAAATGGGNGGGGTNNNANANAAGGAATTTAAAAAANTGGGNTTTTTNTTAAAAAAA
AAACCAATTTTATCCCTTGNTNAGGGGTTTTTGGGNAAGNNAATATGGAAAAANAAN
CCTTTTNTCTT

Sequence 1464

TTTGAGAAGCCAGCGCTCACCCACCCGGGGTCTCTGTGCATTGACCTTTGGGTGCTGACT
TGGAGAAAAGCACAAACACGACCAGTCCCATCCTGGGCTCCCGNNGGCCGNCCTTTCTTT
CCTAATNCTTACCGCCATTTTGGTATTCCGGACCTGGCCAATTTTAGGTTTNGGGACCTT
AAAAGNAATTGGAATTGGAACCTTCCAAGTTTTTTAAAAAAGGGGGAAGGGGAAGNAACC
NAAANATTNNCCTTNGAACCTTGGTTCCTTAAAGNCCAAANGGAAATTGGGGCCCCC
AANAGNCCCTTGNNNGCCAAAAAGGNAAAAAAGNNCCNAACCCAACCTTTGGNN
CNAATTTAACCCNAATTTAAGGGGGGAAATTACCAAGGAAAAGGGGGNCCAAGGAAGG
CCTTTTCTTGGGCCCTTGNCCGGGGGGAATTTCTTNGGCCAAAAACCCAATTTTTTA
ACCCANTTTTTTTGGGTTTTTTTTGGGCCCTTTGGCCCAANAAAAACCTTAACCCC
CCCCGGCGGGTTNACCCCTTTCGGGGGGGCCCGCCTTCTTAAAGNAAAACCTT

TABLE 1

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AAAGGNNTTGGGGGNAATTTCCCCCCCCCCCCGG

Sequence 1465

AGGTACTTTATTTTTCTTTTTTTTTTTTTGTGGATGGGGACTTGTGAATTTTTCTAAA
GGTGCTATTTAACATGGGAGGAGAGCCGTGTGCCGNATCCAGCCCAAGCCCNCCGNTT
CACTTTTTCNACACNCTTTNTTTTTCAACCCTTGGCACCTTCTGGGGCNTTTACTTTAA
AAGNGGNCCCCTTTNTTTGGNCATTACATTAGCAGCGGAAAAACANCCTTTTANTTNCCTT
CCCCNTTNATTGGNGAANANAACCTCCCATTTTNTTTTNTTCAAANAAGGAGCATTTNGNC
AAANANCTNCCCAAATNTNCCCTTNACCACNGGGGNCNNTANNCCACNNTNCTANCTT
NAGNGNNGGCCATTTGGGTTNCNCCCTTGNCCNGGAANTTCTNCCCTTTTCCNTTNGN
TTTTNTCCCNCCNGGGNNGTTTTTTTCCAAGNGAAGNGANCCCAANAATCCTTTTTTNNNN
CNCNAANAAAAANGTTNAANCCNAAAAAAGNGCCCAAGAGTTTTTTTTTTTTTCCCC
CCCCC

Sequence 1466

AGGTACACTGAAACATAAATCCGCAAGTCACCACACATACAACACCCGGCAGGAAAAAAC
AAAAACAGCAAGTTTACATGATCCCTGTAAACAGGCCATGGNNCTNCAANNCTTCAGGAAT
GCCTTNCCNTCNCATTCTGGCCCAAAGNTGGTTGTTTNCNTGGGAATNACCAGGNAGGCC
ACCAATTCCGTGGGGCCNTCCTGGGGGGNGGTTCAACCAACCTNCAAGNCTTTTAAGGG
CTTGGTTGGGGGTTCCCCACCANGAGGCCACCTTNCAATTCTTGGGCTTGGGGGACCTAA
TTGNGGNTGGGGTTGGGNTTGGGACCTTCCTTAACCTTCCAAAAGTAAGNCAANAAGCNT
GTTTAACCCAAGCCAACAATTTNCAAAAAACCAAGGTTGGTAATTTGGNAAACCANTCCT
TTTTTNAAAAATNATTCAAAAAAGTTNGAAGGAAAAANCCANAGGAAAANGGGNCAAC
CATTAANTTAAATNGGTTTATCCAAGNAAAAAAG

Sequence 1467

CCGGGCAGGTACTTTTTTTTTTTTTTTTATAACTGAAGCTTTATCTGGAGTGGGGGAA
TGGGGGTGTGGTCAGTTGGGGCACCCAAAGACAAGCCATGCCNCCNCCCGGAAANGCC
GCNCAGAGGGTTCCCTTGGGCAATNTGGTATNTACTGGGGTATCCTTCTTNTGCGGTTNC
TTTCGGGNCAATTTTTCCGATNNCCACCTTTNNCCTTACAAAGGGNCCCCAANNNTTGN
CTTTCTCCANCNCCCCAAAAGGTTNNGTGCCCTTTTNNNCCCGNAANNNGGAATTGTT
NAAGNCCTTNGNAAGNGGTTATTGGGGAGGACCATTTTCTTTCTTTNCCCCCCCCCA
AGGAAAAAATAATTTCCNGTGTTNAAGNGGTAATGNNAAGTAACCTCCCCCAACCA
AATTGGAAAGGGGNTTAAAGAANTGGNTTTTTNACCTTTTTCTTACCNCCTTTCCNC
CAAANNNCCTTTTTTCAAAGGGGGGGGCCCTTTTTCTTTCTTTAANCCCAAACCTTT
TTNGGAAATTNGGGGGGGGGGGGCCCTTGGGAATTTGGAAAAANCCGGNTTNGGCCCGG
CCTTTGGGTCTTTGGTTTTCCCCAAAAACCCCTTNGGGCCAAACCCCCCT

Sequence 1468

AGGTACGCGGTGGTGAAAAAGAAGTAGAAATCGTGGCCACCTCCCTCTTGGGGTCGT
CGCCCTCGAGATGATTATCCGTAGGAGGGAGTTCTCCACCTCCNCCGCCACAATCTTCC
CAAAGAAAGGGGAGAAAGTCTTTCTTCTTCGGCAGNCNCGNGTAGTCNAGNGGTTCCC
CCTTTTTCTTAGGNAGGCATTTAAGGGGNAAGTAAAGGAAGGNAGGAAGNAATTCGG
CCTTGGTTCTNTCGGGGNAGTAAGNAAAAATCCACCANAGTCCCGGTCCCCGGAATTC
CCTTTCTNTTCTTAAGGGGGTTCCTTCCGGTTAAGGTTCCGNAATTCCTTAAGGGGTTNC
AAAATGAAAAAGNGAAAAATTAAGGAAAGNAACCAAGGTTTTTGGCCAAAGGAAGAA
AGGTTGGGGTGGTTAACCCCTTGGCCCCCGGGGGGCNNGGGCCCCGGCTTCTTAAGAA
AACCTTAGGGTNGGGAATCCCCCCCCCGGGGGGCCTTGGC

Sequence 1469

CCGGGCAGGTACTTTTTTTTTTTTTTTTATAACTGAAGCTTTATCTGGAGTGGGGGAA
TGGGGGTGTGGTCAGTTGGGGCACCCAAAGNACAACCTCATGCCTCTNCCNNGAAAGGNC
GGCCCAAGGGTCCCTGGGCCAATTTGGTTTTCTTGGGATTTCTTCTTTTGGNTACATCG
GNCNAATTTCCGNTACACCTNCCCTNCAAGGGNCCCNAGGTNTGGCTTTCNCCNCCG
GCAANAGNTNGTNCCTTTTACCCCGGAATGGAATGGTTAAGACCTTGNAAGNGGATTT
GGNGGACCTTTTNCATTANCTTACCCCCCAANGTAAAAAATTTCCGGTNNTAAGGG

TABLE 1
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GNAAGAAAAGGAACCCNCCCAACAATTGAAGGNGGTTAAGGTTGGGTATTTTCCTTTTCC
TTTCCCCCTTTCCCCAAAGGCCNTTTTTCNAAGGGGGGGGCCCTTTTNTTTTCATTAACC
AACCTTTTTGGNAATTGGGGGGGGGNCCTTGGAATTGGGAAAAAACCGTTTNCCTGG
CCTTNTCTTTGNGTTCNCCAAAAACCCCTTGGGCCAAACC

Sequence 1470

AGGTACGCGGGTGGTGAAAAAGAAGTAGAAATCGTGGCCACCTCCCTCTTGGGGTCGT
CGCCCTCGAGATGATTATCCGTAGGAGGGAGTNCCTCCACCTCCNCCNCCNCCNATTCTTC
CCAAAGAAAGNAAAGAAAGNCCCTTCTTCTCGGCAAGNCCNGNAGGCCAGGGGNTGC
NCCCTTTTTTCNTAAGGAAGTATTNAGGGGGAGTAAANGTAAGTAAGGAAGGAATCCGG
CCTTGGTTCNTCCGNGGGTAGGAAGGAAAAAATTCCAACCAAGGCCCGNTCCCCGGA
ATNCCCTTTTCTTCTTCTNAGGGGTTNCNTNCGGGTTAGNTTCCGGAATTCCTTAAGGGGT
TCAAAATGGAAGGGAAGGAAAAATTAGGGAAAGTAACCAGGTTTTTTGGCAAGGAAGGAA
AGGTTGGGGGTTGGNTAACCCCTGGCCCCCGNGGGCGGGGCGCGGCTTCCTAAGAAACG
TTAGGGTGGGGAATCCCCCCCCGNGGGGCCTTGCCAAGGGGAAANTTTTCCGNAATTAAT
TCCAAAAGG

Sequence 1471

AGGTACAAACGAGTCCTGGCCTTGTCTGTGGAGACGGATTACACCTTCCACTTGCTGAA
AAGGTCAAGGCCTTCTTGGCTGATCCATCTGCCTTTGTGGGCTGCNTGCCCCCTGGTGGG
CTNGCCTGNCCCACCCAACCAAGGCNTGGCTTCCCTGCCTTGGCCTTGGCCTTGGCAAGGC
TCCCCCAGGCCTTAAAGGGGTTTTGGNAAAGGNCNCCAAAGGGGAAAAGGAAGGTTCCGG
GAAGGGGAANTTCCNGGGAACCGAAGGGNATTAATGGGGGGAATTTTTTGGGGTCTTNC
TTTTTGGACCNTAAAAATTCNAACCCCAAAAAAAAAAAGGNCCNAAANCCCCCAAAA
ANCCTTTTTTAAGNCCCAAGGTTTTTTTTTAATTTTTTGGCCAAAAAAAAAACCAAGGG
GGGAAAAAANTTAAAAAAGGGGGGCCCTTTAAACCTTTTTTCCAANTTANANTAT
AANAATAAAATANNANAANANNNNNTNNGNGGGTTAAACCCCTTTGGGCCCCCGGGG
GGGNCCCGGGGGCCCCCGGNTTCTTAAAGGAAAAACCTTAANGGGTNGGGGGGAA
TCCCCCCCCCCCCCGGGGGGGGCCCTTGGGCCCAAGGGGAAAAAA

Sequence 1472

AGGTACAGAGTCTTTGCTTCTCCACCCCTAGGGGGAAAAACTGCTTTGTGCTTTGGG
AAGTTGTCTCTGAAACCCGGGGACAGAGGACCGCAGGACAGANCTACCGNCGGGGAGNCC
CGNGGNAGGGAATGGGGGCATGCAAGTCATGNTGAGAAGNGGAGNGTGATCTTACAAGCA
NNGGAAGNACGTATGNGGTCCCGNGTAAGNAAGTCCANGTAAGNGNCCCCTTGAAGNAA
AGTCCCAAGTANCGACCAAGTNTTGNAGTAAGTAGGGTGNTGGGNAATAGGTTGNANC
CCATNTCCGGGGGTCTTGGGGGGNCCTTGGGTAAGNCCNCGNCCAACCAACTGCTTCT
CCTNCCCAATGGTTTAAAAAATTAGGCCACCCCTTTTTTAAGGAAAAAATTTTTT
CAACCAAAAGGGTTCNCCCAATTCCAACCATANAAAAAANATAGATANACACAN
AAAGGGGAAAAGGTTACCCCTT

Sequence 1473

AGGTACTGGTGTGTCCGGAATCCTACCCACTGTGATGACAGTGCCTGATAGTTTCTTCTG
CCTTTCTATCCCAAAACGATTGGTCAGTTTACCCAAGGTTTGGCAAATGGCCAGCCTTNA
GNAATCTTCCCCAGGGGAANCAATNCTTCTTTCTTAGGTTAAGNTTTGGCCCCCTTAA
GNCCCAATTCTTTTNGGTTAAGGTTTTGGNAATNTTGAACCTNTNTNTNTNTNTNT
NTNTNTTGTGGCCTTTTCCCAGGAAAAAGGCCTTCTAATGNCCTTTCAATTAATGGGG
AACCTTNGGCCANTAACCCCAAAATTTTTTTTTTNGGGTTTTNCAATTTCTTGGGT
TTTGGGGGTTNCAATGGAATGGGGTTTAAAGGCCAAGAAAGGCCCTTGGANCCCCCTCCCC
NTGGGTTTTAACCAAAATTAAGGAAAAATTGGAAATTCGGGGTTTTTCCCTTGGGGG
CCTTAACCAAGGAACCTTTTGAAGGGTCTTNGGTNTTTTTTTTTTTTGGGTTTTTTT
TTTTAAAAAANCCCTNNTNCCNCCCAATNGGGTTGGGGGGCCNAAAAA

Sequence 1474

CGCGGTGGCGGCCCGCCGGGCAGGTACTTTTTCTTTTTTTTTTTTTTNGGGATGGGGAC
TTGTGAATTTTTCTAAAGNGCTATTTAACATGGGAGGAGAGCCGTGTTGCCGGCTCCAG

TABLE 1

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CCCAGCCCCGCNTGCTTCACNTTCCACCNCCTTTNTTCTCACCTTGCCTTCTTGGGCT
TTTCTNCAAGGGCCCTNNTGGCCTTCTTCCCCGNACCCCTTTGGTTCTTCNCTTCTGG
AAANAACCCNCTTCNCTNCCAACCAAACCTNNGCAGNCTCCCATTNCTTTCCCCGGGCT
TCCCCCNTCNCCTTAAGGTTCTTGGTTCCCCTTGGCCGGTTCNCCTTCTTGGTTCCCCCG
GGGTTTTTCAAGNAGNAACAAANCNTTNCCTTAAAAANGCCAACAAAAAAGGCCAAGGT
TTTTTTTCCCCCCCCTTAAAGNNGGNNTGGGGGGGAAGGGGGAAAAGNCCAAAAAAA
GGAACCTTCTTGGTACCCCTTTTNGGGGCCCGGGCTTCTTAAAGAAAACCTAAGGGTG
GGGGAATNCCCCCCCCCG

Sequence 1475

AGGTACTTCAATCCTGAATTAATCTTTAAACACTTCAAATATGGAGATTAATCACCAAC
TTCTTATTTTTTGGGCCAGTTGGATTCAATTTTTATTTAACCATGGANCTCTTCNTAT
TATTCGGTTACCTNGTNCGGAAATGGCCTAGGAAAGNAAAGGGCCTTCTTTTNCNGGAG
GGGTTNCGGGGAACCAAGNCNAGGAACCTTTTTGGTNAATTTTTAATTGGTTTCCCCTT
TTTTTGGNTGGGGAATTTCTTTAAATNGAACCCCGAGTTCCGGGAACAAGGGAATTG
NAGGCCCAAAGGTTCAAAAAAGGGGAAAACCTTTTTNTNAAACCCCAAGGGTATT
GGCAAGTTTGGGACCACCATTAAATTTTTTTTTTCTTTGGGGAAAAGGGAATGGT
TAATTTTTTCCCCCAAATTCAAAAANCCCTGGGGTGGGGAAATTAAGGGAAAATTT
TCNTGGAAAAAACCAACCAATTCCTAATTTTTTGGAAAAAGGCCTTAATTTTTTTTT
TGGAATAACCAACCC

Sequence 1476

AGGTACAAAATTTTATTAAGGTCTTTAGAGAGCAACATCCAGACTCCAGAATACAGCTG
NGNAGGAGACCCTGTTATGCTGTGGGGACTGGGCTGGGGCATTGGAAAAGCNCCTCCNTC
TGGGCCTTCCCAACNCCCTTANTTGTCTTGNAAAGAAATGGGNGGGGNTTGNNTGGG
NGNCNATGATNATTANCTTTCAATCTTTTTAGGGGGGATTTTACCACCAAAAAATTG
NCCTTTCNAAACCGGTTGNGGNNTTCCATGTGNCCAAGGGNGGNGGCCCTTTCTTTTTA
NNGGGGNCCCCCAAANTTCNTTTTNAACCCCAANTANTTTTGNTTTTTCCGGNNAANGT
CCCGGTGTTTTNTACCCGGAATTCCTCCGGNNGGGGNANCAANGGNGNNTTNCCTTGG
TTGNGTATTNCCCCAACTAATTTAAAAAAAAC

Sequence 1477

CGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTGGATGAAATGCCAGGGTGA
AAGGGATAGCCAAATAGGCTAAAGCACAAAGTGCCACTCTAGGTTAATTTCCGCAGGACNN
GCCCAAATAAAAGGGTCCACCNGACCANNTTACCCAATNCAACAACCATTTCCCGGNT
TTCGGGG

Sequence 1478

AGGTACCTTAACCTTGAGTTACAGGGCTGGTCCCTCTCTTTTCATTTTTATCCCAGTAGG
TGAGACCGTCCCTGCTGTGTTCCGGTGGCTGTGGAGTTGATGGCATCTTTGCTCCAGGTGA
CACCTGCATGCTGGCCAGCTGAGCGGCATAGAGCTGCTGCAAAACAGGGAAGACAAACAT
TGATCTCTTTAAATGCAGCTGAAATTGAGTTTCAAAAGAAAAAAGTTACCATATTGTTAG
ATTTCTCAGACAGCCTTGTAATTTCTTTTCACTATTTTTAAAAAAGGGAGCTAAGAGAA
GGCAATAATAAAACAGAAAGAAAAAGGACAGGTATGGGAGCCATAGTTCTGTTTCTGGT
CCTTCTAGCAACAACCTTATGATCCTGGACAAAGGATTGATCTCTTAGAATTCAAGTT
TTTTTTTTA

Sequence 1479

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAACACCTGCTAAAGACATAGC
TTAATAAATATTTGTTGAATGTTGTTGAATGAAGAGCATTTTCTGCTCATAAATTTCTC
ATTACTTAACGAATGTAGAATAAATTCCTTACTCTGGCAGACTGGAATATGTAGTTACAG
TTTATTCTAGAATTTTTGCATTCCCCTTCTTCTGGTTCACTTGGAGAAGTTCTTTTCCAT
CCTAAGTGACCCAGGTGAGTCCAGTGTCTGCTGATTCTCACTGCAGGGCAGGCATGTGAT
CCAGGCTGGCCACAGTGGTCAGTGTGGACAAGTACCCTTGTTCTGTTGAGTCTAAGC
AAAAGTAGTGCCCCCTTATCCTCGGTGGTTATGTTCCAAGATGCCCAAGTGGATGCCTGA
AACCGTGGATAGTACCTGCCCGGGCGGNCGNTCTAAACTAAGTG

TABLE 1

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Sequence 1480

CCGCGGTGGCGGCCGAGGTACTTAGCATTGATCAAAGAAATTTCAAATTACCGATCAATT
GGGTGGGGAGAGGAATTTTCATTGTCCAAGCACCTCAGGGAACAGAAGTCAAAGCAATA
ACATATTCAGCAATGCAGGTCTATAATGAAGAGAACCCGGAAGTTTTGTGATCATTGAC
ATTTAAGACACCAAAAAATAAAAGACTCCTACGAAGAAGTGTGTTTTGTTTTCTCTTCCT
TTTGAGAAGACACTATGAATTAATTCTACAGCTTTTTTTTGATATATGGAAATTTGTAG
AACAGAAATATTTTAGTTAAAGTGTGACTTTCAGAAAGGGAAAATCAGGGCACAGCCTTG
GTCTGTGTTCCCCAAATATTCACACTTTAAAGAATTCTTAAC

Sequence 1481

ATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATGATTGTCCTTTATGCATTAAATTCAT
GCTTTTACATACTTGTGTTTCCTTTTCATTTGTCCTTCCAAATCATTATTTTAGGAATA
TAGAGAAAAGGGTTGGCCAGGTGCAGTGACTCACACCTGCAATCCCAGCACTTTGGGAGG
TCGAGGTGGGTGGATCACTTGAGGCTAGGATTTTGAGACCAGCCTGACCAACATGGAGAA
ACCCCATCTCTACTGAAAATACAAAATTACCCGGGTGTGGTGGCGCATGCCTGTAACTC
AGCTACTCGGGAGGCTGAGGCAAAAGAATTGCTTGAATCTGGGAGGCGGAGGTTGTGGTG
AGCCAAGATCGTGCCATTGCACTCCAGCCTGGGCAACAAGAGCGAAACTCCGTCTCAAAA
AAATTAATAAATAAGGCTTATGTGCAGTTATTCTCAATGAGCTAAAAAGCTTCCTGAGG
CTAGAAATCTTGTCATTTTTGGCTGGGA

Sequence 1482

CCGCGGTGGCGGCCGCGGCCGAGGTACTATCTATTTGGCCTTGGAAAGTTACTCTCTAAG
TCAGGGCTTCTTTTCTTNACTTTGGTGTGAGACTCCGCTGGAGAGCCGGTTAGAAAAAC
ACAAGTCTCGGGCCCCACCCGCGAGAGCCCTCATTCTCTAGTTCTGGGTGGGGCCAG
GAGTCTGCTTTTCTAGCAAGCGCCAGATGTCACTGATGCTTACAGCTCTCANACCAG
TTGGAGCAGNGATTTTTAAAAGTCTTTTCATTTGTAAAGAGTNGTTCTCCATGCTCCAAA
TGACTGNGACGACTGAGAAAATGCATGTATGTAAAGTCTGCANCTGGTGACATTGTACAC
ACTNAGCAAATGGCCTTNGGTGTTACTGTNANTTTATTTTACTAATTATTTNTNACCC
NACAAATTNGGANCTGCTNCAATCGGTNGGAATTTGGAAATTGGGC

Sequence 1483

GCTGCCATCAGCTCCCTAGGAGCTCTCCCTCCAGGAAGGGAATGTGTCCACCGTCAGACA
CTCAGACCCAGCATGTGGGGACAGAGGCTGATGGCCTGTCTGGCCATTCTCTCAGTTCC
TCTCCTCACTAGCTTGTGTCTTGTGCAAGTCACTTACCCTCTCTGAGGTTCAAGTTCCCT
CCTCTTTGAAGTGGGTTTAATAATAAGTACCTGCCG

Sequence 1484

CCGCGGTGGCGGCCGCGGCCGAGGTACTGCCCTTTGTTAGAAGGCAGTGACTCCTTTT
TGTGAAGCCGATTTAGTGAAGTGTCTGTGCAGAAAAGAGTCCAGGGCTGTCAGTTAAT
TCTTCCGGCCACTGGAGTTAGGGTTTGAAGTCTGCAGCTGCCTATTGCACTTGTGAAAA
GGTTTGTATGTTCACTGCTGGCTGGCTCAGAGTTGGGAGTGAATCCTCCAAGGGATA
AGCTTGGAGAACTTTCTGAACAGTCAATCTGTAAAGGTGTCTGCAATCCAAGGCCAATG
GACTAGATTCTGAAGGCTCTCGGTGGACCCACTGTTCTCTCTGTTTATTAAGCTTTTTG
AAGGAGAGAGATGAGGGCAGGACATGTGACAACGGTGCTTTTCCTTATGCTTATATCGCT
CTCCAACAGCATCCTT

Sequence 1485

AGGTACATGCAAGTTGCATGATTATAATGACGTGATCCTGGGATTTAAGTTGATTATGAC
AGGAACAGAAGGAAGTTGGAGATTAGGGACAATGAAAAGGTGGTAGTGAAAGGAGTGTG
GAGTTAAGTTACTAGATGTCTGGAAGACAGACTGTGGTGGTCAGATAATGAGATAGATTA
TGGAGGGGTTACAGTTTTTGGTAATAACGAGAGAGATCTAAGGTATGACTGAGAGTGAAT
GGATGAGAATAGCAGAGAACAAGGTCAGTGGAAGTACTCTTCAAAGAACCTATAGTCA
GGGTGTTGAAAGATTAATAAATTGCTAAGAATTAATCAGGAAGTAGTGCTGCGGGAAATG
AAATGAGCAGTGAAGTAACTTACTGAGAAATGAGAGGGGATGACCCAAGGGTTGTAGA
TTTTGTAGATGATAGCA

Sequence 1486

TABLE 1

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AGGTACATGACATCCGACGAAATGAGACGCCACCTAATTGATTTCCGGGAGTCCGCACCA
GGGGCCCTCAGGGAAGAGACCCCGCAAAGATCCTGGGAGACCAAGGTGGGGACCCTGGTG
AGAAGAGAGAGTTTCAGGGGAGTCTCTCTTCATTGCCCTTCTGCTAACCCAAGCATTAAATT
TGCTAAGTATTTACCAGGGGAGTGGGAAAAAGAGTTGAGCGGGATTCTCTTAGGCTATGA
GAGAGTCAGGCAGCCCCCAAGATAAAATAATGAAGTAGAAAATCTGGAACCTTACTTCTC
TGGGAATNTTACCTATCTGGCACCGTGGGAAGAAAGAAAAAAGGCTACTGAGTACCTGCC
CG

Sequence 1487

GCGGTGGCGGCCGAGGTACTGACCTCTGCCAGTCAGCTGCGTAACTCCAGGCCCTAGGGT
GCCCCGTCTGTCCAGCCAGGGATTGCATGGATATGCTGTGATCTCCCTTTTGGTTCTGAT
TGAGTTGGACCTTGTGGGAGGAGAAACATAGATGTTGATACATGAACACATATGTTGGAG
AGAGAAAGTTTTATCTTGGCATAGGACTTTTAAAACACAAGGTAATTTTTAATCAGTTTT
GGGACCAAAAAAACAATCAATATGGGAAAAATCCAAATTCTGCCAAAATGTCTAAAGAGGT
TTATTCTGAACCAAGTATAAGTGACTGTGGTCTAGGTTACACAATTTCAAGAGATCCTGAT
AAAGCGTGCATGAGAGAGTTGGGCTACAGCTTGGTTTTACACATTTTCAAGGAGACAGGAA
TTGTANGGTAAAATTATGGCACAGGACTTTTAAAATGAAGCTGTGAAAGTTTACAGTCCA
TAGAGAATAAAAAATCTAGAAGTTT

Sequence 1488

CCGCGGTGGCGGCCGAGGTACTTGACACGACATATGGTAAATGAATAAGACAAAGGCTCT
GATGGCTTCTCACAGCCCTGTGGATCAAACCTCAGATTCTTTTCTAGAACCCCAAGGCCCT
GTCAGTCTCACTAGCCTCTCTCCAGACACACCAGCCTTTTTCTACCTTTCCAACATCCCA
AGTTCCTTTTCTCTTACAGGACTACATACACTCTCTCTTCTGCCAGAAACCATGTTCTAC
CAGCTAATTTCCACTCAACTTTTAAGTCTCANCTGAAATGTTACTTCCAAAGAGAGGCCCT
CCACTGAACCCCAAGCCTGGGGTTCACAGCACCTGTCTCCATAACTACATAATAATCTCT
CTGATGTTTAGGCTGGGCATGGTGGCTCACGCCTGTAATGCCAGCACTTTGGGAGGCCAA
GGCG

Sequence 1489

GGGCGAATTGGAGCTCCCCGNGGTGGCGGCCGGGAGGTACCCAGAGTTGCGAGGAGTTT
TTAACTGATTTAGCCAGGTGGCAANCATNAGTGAATGGATGAAGAAAGGCCCTTAGAA
TGGCAAGATTACATTTACAAAGAGGTCCGAGTGACAGCCAGTGAGAAGAATGAGTATAAA
GGATGGGTTTTAACTACAGACCCAGTCTCTGCCAATATTGTCCTTGTGAACCTCCTTGAA
GATGGCAGCATGTCTGTGACCGGAATTATGGGACATGCTGTGCAGACTGTTGAACTATG
A

Sequence 1490

GATNAGCTCGATATNGAATNNCNCANNNGGGGANNNCANNNGNACAAGAGCGGANNCC
NNCGCAGAGGAGCTNCAANTTTACACACTGTTTAAATGAGGGAATANGCNGCAGCGCTTG
GATGTAAGTGAAGAAGACAGTNNGAGCNCNAAGGAGGACAACCACGACCTATGAGGACA
CCATGCCAGAGAGGCCCTGGACCCACGCTAGGCTCAGTGCCTGTTATACTCTTGGGACCC
AGCGCTTTCCTTCTCCATCACGTGGCATACTTGGCATTATTTGTTGNTTAAAATATTGCC
CTTAGTTTTNACCTTTCNTAAGGAGACACAAGGNNGACCTTTGNGACATTAAACAGTTGCC
CCAAGTNGGGGNANANANAANAATTTTTGGGGGNGNAAAAANCTTTTGGCTTTTTNNAAA
AAATTTTTTTTTNAAANTTT

Sequence 1491

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGGTGACCCTTGCTGGT
GCTTTCATGTTTTGTGCCGAGGCAATTAGACTTTGTGCTGAATNTGTTTGTGCTGCCACC
TCAGGGAAGGGGTGGAATGTGCAGCGTGGTTTCCATTTGACATTGTTTTCCCTGAGAGAT
GGGAGGGCTGAACGTTACCTCTTGACAAGTCTTAGTGGACAGAGGGGCCCGGATACCCAA
GCGCCTTAGTTCTTAGGGCTGGGTATTAGTTCAATTTTACACTGCTGATAAAGACATACT
CGATACTGGGAAGAAAAAGAGTTTAAATTGGACTCCACATGGCT

Sequence 1492

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTACCCTTTACTTTTTCCC

TABLE 1
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CAAGACCATCTCAGGGTGGAGCATTCTGTCTAAGAGAAGAAAGATAAGGAGGCTCCCACC
CACCTCTCCCAAGAGCAGACATTAACATCTTTGTGCTTTGAAGAGAGTGAATTTTGGAT
AGTCTTGTGATTCTCAGACTAAGTCCAGAATTATACTTTAACCCCTTCCAGATATGGTC
CGCCTTTGGCATTGTGTGTACCTGTGATGGGGCGTGTGGTTTCCGGTTGTCTCACCTTTA
ATTGTCAACCTCCAGTGTTGACTCTAGAAATATGAGGAAAGCTTTTCAGTTTTTAAAT
GCCATTTAAATTTAGTCTATTAACAAACCTAGAGGTCTTGGTGCAGTTGATTTTCAGA
GTTTATTAATTTAAGTGGTCCCAAAGTATTACATCTTTTATATTCTGGAAGAAAAGAAC
TGTGAACAAATTAGA

Sequence 1493

CTATAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGCGCCGCGGCANGGTACTGTGGAGGT
CCCAGGAGTGCTGGTGATGGGCACAAAGTCCGATGGGTGAAACCATTGACATAGAGACT
GCCTCTGTCCAGGAGGNANGGCGCCAGCTCGATGATGCCATGGGTGAGTTTGTCTCAGCTC
CCAGTATAGCTGCTCTCTGTCCAGTCCAGGGTTAGAGGGTCAAGCGGTGAGTGCAGAT
GGTGTCCACGCCGGTGGCTGNCCCAGTTTTTCAGGCCTGAGCAAGGTCAGTNTGCAGCC
AGAGTACCTT

Sequence 1494

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAATAATTTGAATTTGTAATGA
GTCTGATGGTATATTTCAATTTTTGCTTTGAGGGACTGGCTGCTACATTGCAGAAATATC
TTATATCCCTGACTGCTTTCCACTAAATGTCAGTGGTGACCCCAATCCAATTATTATGAC
AACTGAACATGCTTATGCATCCCTCATGCCTTTATTTTTATTTTGGGAAATCTTTCAGC
TTCAGTTTTTGTGATATTTATGTGATTCTTTGTTCTGCAATTCAAATTTCTGGGAGCCA
AACAGTCTCCTTGGTTCAGATTACTGTTTTTGAAGTCTTCTCGCTTCAGATTCTGT
CATAAGATTATGGCTTAACCTATGGTTGTCCTTTGATTTGGTGCCATATGAAATAAAACA
TTATTT

Sequence 1495

GAGCTCCCCGCGGTGGCGGCCGCGCCGCGGCAAGGTACGCGGGGAGTTTCACGCGCGTATGC
TTTGCCCGCCATGGCCGCGAGTCAAGGNGCCTTTGGAGTTCCATGCCAAGCGGTCTTGGCG
CCCCGAGGAGGCAGTAGAAGATCCGGACGAGGAGGATGAGGATAATACTAGTGAAGCCGA
GAATGGGTTCTCCCTGGAGGAAAGTGTTACGGCTCGGAGGCACCAAGCAAGGATACCTTA
TGCTGGCTACTTTGGATGAGAATGAGGGAAGTGATAGATGGAGGGCAAAAAAAGGAGCAA
TCCGATTGACCTTTNACCAAGGGGGANTTTTGAAGCTTTTTTTTTTAAAAATTTTTNTT
TTTTNGGNGAAATTTTTNAAAAACTTTTTTTNTTTNAAANNANATTACCCCCCTTTTAA
AAAAAAAATTTNCCCCCAAAAAAAAANGGGNAAAAANANCCCCCAAAAAANAAAAAN
ATTAAAAAAACCCCCCAAAANGNTTCAAGGGGCCCTTTTTTTTTTTTNGGGGNAAAAAA
AAAAAATTNGGCCCCCNCNCNTTTTTTTGGGAGGAGAGGGGGGNCCCCCNCCTTTTA
AAAAAAAAGGGCCCCCCCCGGGGGGGGGGGNANTTTTANAAANTTTTTTTTCCCCC
CCCC

Sequence 1496

CGGGCAGGACCATGGGAAATAAGAGCNGGCTNNNGGCATTCTGNGTANGGAGCCTGAGCC
AAACTCTAAAGCTGTCTTTATAAAGGGAGGTCATGTGATGGCCAGAAATTGCCTTTGCTT
CATGGTGCATTTGGTGGGGAGTCAGGTGTGGGGTGTGGGTTTACATCATCCCATTTTC
TTTTNNGNNTTCAGACCTGCAATGCTTCTTTTGAACCCGAGACCGTCTGCGCTCCCACC
TGGCCTGTGATGAAGACAAGGTGCCCTGCCAGGTGTGTGGGAAGTACCT

Sequence 1497

AGGTACTTTTNGAAGTAAGTGGACATGNGGGAGGNNAGGGGAANGGAAGTATTGNTATGG
ACTGAACTGTGCCCCAAAATTCATATGTNGAAGCCNTGAGCTCTGACATGATTGNATNT
GAAGTCCTAAAGCCAGGAATGAGGAAGGCTGTGAATGTNCATTGTTCCATGCAAGAATGA
CTCTGGNGNGGGCTATTTAGAGATCATGAGGGATACTGCCCCAGTTTCCACAGGCCAGAT
GGNCTCCAACAAAAGCCACGGGGAGTCACCCCTGCCTGGCAGATCTATCGGGTCAGGAC
CACCGCCCAGGGGGTCTTGAGAGGACAGTATAGGACCAAAGAGGAT

Sequence 1498

TABLE 1

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CACCGNGGTGGCGCCCGAGGTA CT TGGCCAAGCGCTCAGATCGGCAAGGGGCACCAAGTC
TTGATCTGCCCAGTGCACAGNCCCACAACCAGGT CAGCGATGAAGGTATCTTCAGTCTCC
CCCGAACGATGAGACACCATGACGCCCCAACCATTGGCCTGGGCCAGCTTGCACGCCTGA
AGAGACTCGGT CACCGGAGCCATTCTGGNTTGACTTTTTAGCAAGAAGGNANTTNAAGGA
NTTTTTTTTTANCGNCTTNGGNAATCCTTTTGGGGGTGGGGCNCNTGGGNGAAAACTCC
CCCCANCCNTNGNGATT CNTTNCNNGNGGGNGAAAAATTTTTGGNNAAAAANTNNCCC
ATAANNTTTTTNGTGAANAANGGANTTTTTNANAAAAANCCCCCTGGGGTNTNTNTTTN
NNNAAAAANATTTTTNTCTTNCNCGGGGGGNCNNTTTTATAAAAAAANGANNANACC
CCCCNCCGTGGNGGAGAAAAATNTTTANATTATTTTTTTCNTCCCCCCCCGGGCCT
TGGGGGGGGGGGCCCCCCANCCCTTTTTTTTTTTTTT

Sequence 1499

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAGTTAA
TTTGTGTCATCCCATCAGCAATGAAGGTCCCTATCCAGGGTCCCTGCTTGGAGCAGCATT
CATGTTCTTTTGTGCTTTTGTGCTTTGCCGATTTTGGATTTTATTTTTACAAAATTTTT
ATTTAAAAAACTCGTCACCTTTTGAAATGCCCATTTGCCGACTTGAATTTTTTGTATGA
AGTCCCTCCTGATTTTGTGTGTGTGTGTCTGTGTTAAGCAAGCGTTCGGTTGGTATAGN
TTTTTTTTGTTTTTTAATTTAAATTGAAGGTAGCTGCCTCCTGAAAGCCAGCATTAAAGC
CAGAACACCCAGNTTCAAGCAAAAGACCCACCTCTCTGCAGAGGCAAAGTCTACTTTCTG
GTACCT

Sequence 1500

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTA CT TTTAGTAGAGACGGGGT
TCACCATGTTTGCCAGGCTGGTCTCGAACCCCTGGCCTCAAGTGATCCACCCGCCGAGA
TCCCAGAGTGCTGGGATTTCAGGTGTGAGCCACTATGCCCGGCCTAATACGTGGATTT
TAAAGCTTCAGGTCTGGTT CAGAAGTTTCTGGTCTCATTAAAATAATGAGGCACTCA
GAATTGGTCTAATAAAAAATAACGACCATTTCTTTCTACTTCAGCTNTTTCACAACTTTT
TTAATGAAAATGACAAGNGAGGNCCTTCAGTAGGGGCATTTTCAGGGGANAAAAATAGCG
GGNAGACCTGAAACCTGGGNTAGGNAGTTTNTTTTTATTTTTTGAACAAGAAGANNAATT
TTTTCANAGACCCTAAAAAATNTTTTCCAAAAACAAAAGNGNTTTNTTTTTNTTTNG
GGNGGGACCCCTTCCTTTTGGGNNTTTTNCCTTCCCCCT

Sequence 1501

CACTACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGG
GGGCCACTGACCACAGCTCTTTCTTCAGGGACAGACATGGCTCAGCGGATGACAACACAG
CTGCTGCTCCTTCTAGTGTGGGTGGCTGTAGTAGGGGAGGCTCAGACAAGGATTGCATGG
GCCAGGACTGAGCTTNTNAATGTNTGCATGACCCCCAAGCCCCACANGGAAAACCCGCC
CCCGNGGACAATTTGTTTTNACCANGTTTCCCCNTTGGNNNNAAAAAATTCCTTTTTTT
TTTNCNNCCCCCCCCNCGNGNCCCNAAAGGGGGNNTTTTCCCCNNTTTTTNTANTNNNC
CCCCCCCCCCCCGGGGGNGGGGNGGNCNCCCNCTTTTTNNNAANNANTTTTTTTTTNT
TNAAAAANCCNCCNNTTTTTANAANGGGGNTCCCCNNAATNTNGGGGCCNTTATCC
CCNGGGGGNTAAAAANAANTNTTNNCCAAAAAGGGGGGNCCTTCCCCCTTTTNAAAA
NAGGGGGCCCCCCCCGNGGGGGGNGNGAANTNATAAAANTTTTTTTTNCNCCCCCT

Sequence 1502

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATTCCAGCG
CAGTCTGGGCCCCAAAGCAGTTTACCCCTTACCTAACTTACCTAACTCTTAATATAGCCT
AAACTCACTGAAAAATAAGCTAACTTCATTTACCTTTNGTAGCATACAGTAGACTCAG
AGTNTATACTGAAATATAATGGGAGGCTGTTATNAAAAAAAACNNCCCTCNAAAAAAA
AAAATNTNNCCNCTNAAAAAAAANNNNGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG
GGTTTTTTTTNATNTNAAAAAAAATNNGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG
TNNTNTNTTCCCTNNANTCCGG
NTCTNTNCTANNNCACNCTCCNANACCCGCNNNNGANNNNAANATNNNTTNNAAATTAT
NNNNATTTNNAAAAAGNGGG
AANTANNATAGTNTCTNNNGNANNNTTNTNTNNNNANATNTNGGNNTNCNCCNCTN

TABLE 1
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CNTCTTNTTTATAAAANAAAAAA

Sequence 1503

CCCTCGCGGTGGCGGGCGAGGTGCATCACCCCTGCTGAGGGACATCCAGGACAAGGTCACC
ACACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTG
ACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCAGC
CTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCC
ACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACCAACA
AGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACCATATTCC
CAGGACAAAGCCCAGCCAGGCACCACCAATTACCAGAGGAACAAAGGAATATTGAGGAT
GCGCTCAACCAACTCTCGAAACAGC

Sequence 1504

CCGGGCAGGTACTCTTGACAAAGCCTCCCCAACAAAGGTGAAATCACTCTCGGCTCACCA
TGGTGGCAGAAATACTCTGGGCCTGTCTGTTCTGAATGGTCAGTTTCACTGTAATCCTCA
GGCCCTTCCAGTCACCCGTTGCCCTTGGCAATGTCATCACCAACTTTTTTTGGAGACAGAC
CCAGGGGGCCCGATCTTGGGGGCCAGGGCAGAAGTTGGCACCGACTTTNCCTTCCGGGNN
CCCCTAAGGTTAAANAACTTTNTTTTTTTGGGGNNNAAAAANTTTTCGGGCNNTTGGGGG
GGGGCCCTTTNNTTTTTTAAANNAAACCCCCNNTTTTNGGGAAAAACCCNAAAGAAAAAGTN
CCCCCTTGGGCCCCCCCCCCNCCCAAAGGCCGNNAAAAAACCCCGGTTTTTTNGNGTT
TTTTAAAAAAAAGGAAANCCCCCGCNCNCGGGAANNTTTNTNANAANTTTTTTCCCC
CCCCCCCCNCGGGGGGGGGGGCCCGGCNCNNTTTTTTTTTTTTTTTT

Sequence 1505

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATGGTGGTAA
ATGCTTAACTCCACCTATATAAAATCAAAACAGGCAAAATGAATCATCAGACTACAGC
TTACCTTTAGGGGGTGTGAGTAGTGACTAACAGGGGTCAAGATGAAGGTTAAGGATGTC
GCCAGGCGCAGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCAGGCGGAT
CACTGAGGTGAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCTGTCTCTACTAA
AAATCAAAAAATTAGCCGGGCGTGGNGGTAGGCGTCTGTNGTCCCAGCTACTCGGGAGG
CTGAGGCAGGAGATGACGTGAACCCAGNAGGTGGAACCTGCAGTGAGCCGA

Sequence 1506

CCGCGGTGGCGGCCGCCCGGGCAGGTACCATTCTGCATTTATTTTAGCCCATGGAATAA
CTGTGCTGAGAAACCACAGAGTCAATCAGATTCAAATGTTAAATCCTTCTGCTTGA
GTTTTCCGTCTTCACATCAAAGCATTTATGCCCCGTCAGCACTTTTAATGCATTTGCT
CCTCGTTTGACAATTTCCATTTAAGACTTTCTTGGCTGACTTCTCTGATGAGGTTTC
CTGCTTGCCAGGAGAGCACGCTAATGCAGAAATTACAAAGGGGGCTTCACGTCCCTTTTC
CGGAGGACCTGATATTTAGATAATTTCCAGCTTCAGTTTTGGAGAAACGACTGTTCTTT
GCACCAGGGGAAAATAAACTGATTTTCACTGTAAGCAACCTTTCTGCAAGTAGAATGGGG
ACTGTTGGGAATGGAGATGAAGACTTCACTTCATGTTATTCAATTCCTTAC

Sequence 1507

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTGG
GTTAGGTTAACAGAAACAATGGGGTTATTTCCGGTAGTGGCAACAGCACGAACTAGTTTT
CTTGTGGAATAATGGCCCGAGAGTTCCTGCGATTTGTGGATTATTTCCCTTAGATGCAAT
CGACCATTTCTGTTCCAATAAGAATTAATGCTACCACGGGGCTTACAAAGAACCCCTCAAG
TCTTCCAAATCTGCCCATGACATCAACCTNTGCTGCGTAATCGGACCTGCACCCAACCCA
GGTTT

Sequence 1508

CCGCGGTGGCGGCCGAGGTACGCGGGAGAACAGCTCAGAAGGAGACCCACAGTGAGCAGC
TCCCCTGTGTGGCGGGCAGGTCGTCCCTCAAGTGTTCACTCTCAGCAGAGAAAAGGCC
CTGGAGAGGGTGACTCCTCTCAGCTCTCAGCAGAGAAGCAGCCCTGGAGAAGGTAGCTTC
TGTTGCGAGGCAGATTGTCCAGAGGTCCTGCTGCTCTCAGACGGGGCCCTGGAGAGGATA
GCTTCTATCCATAGGCAGG

Sequence 1509

TABLE 1

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CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATAGCA
GTGGAAGCTGCAGAGGGCCGAAACAAAATGAAGTTTTCTACCAATGTCCAGACCAAATG
GCTCGAAATCCAGCTGCTATTGACATGTTTATTATAGGTGCTACTTTTACTGACTGGTTT
ACCTCTTATGTCAAAAATGTTGTATCAGGTGGCTTCCCCATCATCAGAGACCAAATTTTC
AGATATGTTACGATCCAGAATGTGTAGCAACAACCTGGG

Sequence 1510

CTCCCGCGGTGGCGGCCGCCGGGCGNGGACTTTTTTTTTTTTTTTTTTTTTTAAAGAT
CCAGACTAAGACACATCAACAAGAAATTTCCAAATACCAGGTCAAGAATACTTCACATGT
TTCTGGAGGGAAAGAAAACAGTTCATATACAGNGAATCAGGAATTACAATTGCATCAGAC
TTATCAACAGCATCGGGAAGATAATGNGAAAATACCTTCAAACTCTNGAGGGACACAAG
AAGATGCTGCCTGGCCACAGGAGCGAGACTGCTGGCCTCCAATCAGTCTTNTGGGCAGGC
CTNTGATGCAATTACAGGGCTAAGGAACACGGTAACCAATGTGCCATTGGCTGTGCTAA
AACCAGNGGCCCCAGGAAGAATCCTGTTGACACTGGCTTGGAACATGAGGCTTAA

Sequence 1511

CGACTACTATAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAAGGTACTTTT
TTTTTTTTTTTTTTTTTTTTTGGCATATAATCCAGTTTATTAAATACAGATGATGGGC
CAGACATGGTGATAGAGAAATACAGATTAAGAAACCAGATCAAATCCTTTTTAAGGAATT
ATNTAGNGGAAAATATNTCAACTNTNTNTTTACNCTACTATTATTATCTTACACTTCA
AATCTTCACCTTTCCATTTTGACNGNCGCTNTTTACTTCAGNNTCCTGAAAACATNTTT
CCAACAGAAGTTACATAAAAATNCTAATCTTCAAGGGGCTTTCTAAAATATTTTNTATCAC
GTCATTAATAATCTTCTTCACTAGGCAANGGTTNTGTCTTTATGGGGGCTG

Sequence 1512

CCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGACAGAAATGGAGTCATCAGTTTATCA
ACCAACAAGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACC
ATATTCCCAGGACAAAAGCCCAGCCAGGCACCAATTAACAGAGGAACAAAAGGAATAT
TGAGGATGCGCTCAACCAACTCTTCCGAAACAGCAGCATCAAGAGTTATTTTCTGACTG
TCAAGTTTCAACATTAGGTCTGTCCCAACAGGCACACACCCGGGGGTGGACTCCCTGT
GTAACCTCTCGCCACTGGCTCGGAGAGTAGACAGAGTTGCCATCTATGAGGGAATTTCTG
CGGATGACCGGAAATGGGTACCTCGGCCGCTCTANAAGTAGGTGGGATCCCCCGGGCTG
NAAGGAATTTGATATCNAGCTTATCGATACCGTCCGACCCTCGAGGGGGGGGGCCCGG
GTCCAGCTTTTTGGTCC

Sequence 1513

NGGGGCCGCCGCCCGGGGCCGGNCAAGCAANGGGGGGCCAACNAAGGCNNGGNNNCC
CCNNGGGGGGNANGGAAAAACGNGGGNAANCCCCGCGGCAACCAAAAGGGGNCCAACAACA
AAACAAGAACCGGGAGGCCCGGGGGGAGNCCANAAAAAANGGCGGCANAAAAGNCCNGG
GGGGGGGGGGGCCCNAAAAAAGGAGGGNNGGGANGCCAAAAACCAGCNACNAANCAAAAN
GCGGCCCGGGGGGGGCCGCCCAACNNGGGCCCCAGCCTTAAAGNCCCAAGAANCCGCGG
GGAAAAAACCCNNGGNCCGGGGGGGCCCAAGCCNNGGGCCAANNAAAAAANGGGAAAAA
NNCGGGGCCCCCAACCCGCCCGCCGNGNGGGGAAAAGGAAGGGGGGCCGGGNNCNC CGC
CCGGNAANNCCGGGGGGGGCCGGCCCNCCGNGCCCCGCCNNNCCCNCCGGCGGGCNAAC
CNGGGAACCGCCGGCCNGGCCGGCCCNCCGGGGGGNCCCGGNNNACCGGGANGNGGNC
CGGGCCGAAGCCCGGGGNANGCAAGCCGNCNAACCNCAAAAAAAGGGGC

Sequence 1514

GTNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAAGTCTTNTAAATCTGGTGTGTTT
TTTACACTTGAGCACATCTCAAATGAAATAGCAACATTTTACATGCACAAGACTCACAT
ATCTTCTGATGGCTATCTTGTGAATAGCACAATTCTAGGAAGTTCAAAAGGGGGAACAA
TTGCTTCTCAAATTGATGAAGGTAGAGAAGAATGGTATCAGAGAACTGATTAAGCAGGG
ACCTGGGAATCTGAGTTGAGTTCCGGGGCATGTTTGTTCCTAGCACCATGACCTACATG
GCAGTGTCTTCTCATACTATTNTAAGAGTCCCTGG

Sequence 1515

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGAGGCCAAGC

TGGACTGCATATAAGATTGGTATGGCCTTAGCTCTTAGCCAAACACCTTCCTGACACCATG
AGGGCCAGCAGCTTCTTGATCGTGGTGGTGTTCCTCATCGCTGGGATGCTGGTTCTAGAG
GCAGCTGTCACGGGAGTTCCTGTAAAGGTCAAGACCCTGTCAAAGGCCGTGCTCCATTC
AATGGACAAGATCGAGCGGCCGCGGGCAGGTACTTCATGAGACAAAATGGAAAAAGGAGA
ATTAATTAATAATGCACAACTAATATTTATCTACTACAGACATAATATTTCTCAGTTGTG
AACTAATTACTATGCTTGGAAAATGCTAGCATCCTCATAAATATTTGGTTCTATTGGGA
TACAAAATCTGATTTTCGCAAACCTTTGCAAAGGCACATTTT

Sequence 1516

CCGGGCACGGTACGCGGGGGCATTATCTTCACTCTGATGAGGGCTCAGACTTGATAACG
CCCGTGGTGCCCCATCCCTATAGGAGCTGGTGAGATTGCAGCCTGCTGCCTCCCCTCCAT
CAGCCACAGCTATTGGATTTCCCACCCAGAATCTTTAGGTAAATGAGGTAAGTCCTGATT
TTTAAACTTCTTTTGAATCTGGAATCCAAACACCTGAGTGGAAAGAGAAGCCTGCTTTA
AACTGGACAGATGAAACTAGAACAGACTCTTGGAGACGGCTGGCAGGAAGTGAAGCTCAC
CTTACCTGGGCTTACCTCACTGGGTCAAATCAGAATTTTATTTTGGAGGGCAGGTTGGCT
ACTTTGGATATTATCTGNGAATTTCTGCATTGGCTGGACTTCTAATCTCTGNGAATTTA
AAAGCC

Sequence 1517

CCGCGGTGGCGGCCGAGGTACCTTTTAGTTATTGACAAGGTTAAATAGCACTCTCAGTT
TTTCAGTATTACAGAGAGCAAATAGTTTCCTCTCCTGCTCTGNGCAGTAGCTTTTCCAGA
ACTATGGACAAAATTNGATCAGAAAGAAGATTGATTATTTCTCATCTTTTTTCTTTTT
TTTGAGACAGAGTCTCTCTNTGTCCCCAGGCTGAAGTGCAGCGGCATGATCTCAGCTCA
CTGCAACCTCTGCCTCCCGGTTCAAGTGATTCTCCTGCCTCAGCCTTCTGAGTAGCTGG
GATTACAGGCGCGTGCCANCATGCCCGC

Sequence 1518

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTTTTCTTTCTTTCTTTTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGGCANNAAAAANCNT
NATTNCCATTNGGCCCAAGGCTTGTTAGGAAAGTAAAAAAGCCCCCNATTGGCNGGNGG
GNNNGGCTTAGGCAAAACCCTANTACTTTGCANGGGGGCCCTCNAAAAAGCCCCGNGGGGCC
CNAAAAAAGNCTTAAANCCNCCNGTGAAGAGGGGGCCCTTNAAAAAAAGCCCCCNCNNNN
NAAATTTTNGGCCCCCCCCCCCGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG
TNTNNAACCNCCNCCCCCCCCCCCCCNNAANNGGGGGGGGGGGGGGGGGGGGGGGGGGGGG
GGGGGGGNNNGGCCCCCCCCCCCCCCCNAAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGG
TTTTTNCNCCCCCCCCCNCCNNNNNNNNNNNGGGGGGG

Sequence 1519

CCGGGCNTGGACTTTTTTTTTTTTTTTTTTTTTNCTTGCTTTTGTTTTTCTTCGATA
TCTTCAAATCTGTGTCAGAAGAAAAATGTGTTTCTGACTCCTGTAGTAGATTAAATCA
GTTGGTATTTCTGGAGCTGCTATCATTTCTTTATCATCTTCTGGAACACCTCAATGTCAG
AAATATATTATATATTTACGTGGGTAAATGGNGGCTTGCCTTCTTTCTTCTAAGACAA
TTCCTCACGGNGGGGCCAAGCGCCCTCCGGGTGCCCTCCAACTTNTAGAAGCTTCGCCCT
CCGCCATTTATAACTTACCTCCCCGCGTACCTN

Sequence 1520

CCGCGGTGGCGGCCGAGGTACATCACCTGCTGAGGGACATCCAGGACAAGGTCACCACA
CTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGACG
ATGGAATCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCCAGCCTG
GTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCCACC
TACCAGTTGGTGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACCAACAAGC
AGCTCAGGACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACCATATTCCAG
GACAAAGCCAGCCAGGCACCACAATTACCAGAGGAACAAAAGGAATATTGAGGATGCG
CTCAACCAACTCTTCCGAAACAGC

Sequence 1521

CCGCGGTGGCGGCCGCGCCGGGCAGGTACATCACCTGCTGAGGGACATCCAGGACAAGGT

TABLE 1

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CACCACACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAA
CTTGACGATGGACTCCGTGTGCGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCC
CAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGG
CTCCACCTACCAGTTGGTGGACATCCATGTGGCAGAAATGGAGTCATCAGTTTATCAACC
AACAAGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACCATA
TTCCCAGGACAAAGCCCAGCCAGGCACCACCAATTACCAGAGGAACAAAGGAATATTGA
GGATGCGCTCAACCAACTCTTCCGAAACAGCAGCATCAAGAGT

Sequence 1522

TACTATAGGGCGAATTGGANCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTT
TTTTGGTGGTAATTGAGCTGGGAAAAATCAGAATTGGGTCATAATTAATGGTAACTAAA
CAGATTTGNGAATATGGGACATCTGTGGNCTTGAAAACATCAGTATGATTTGNCCCCATA
TTTCTTCAGCCTGGACAATAGAAACAGACAGGGGAGGGGGTAAAGTGCANTAAAGTAGG
CTGAGTGATGTGGTGTAGCAGCTGGAGTCCAGAGAAGTTCTGACAGTGCAGGGAGCAGC
CCCTTTGTTCTTTGGAGCACTGGAAGGGCTGAGCTGCATCTGAGGTGTTCAAGCCACCAA
CAGGACAGGGTAGAGGACTAAGTAGCACATGTCCTCCAGAGCAGCTTCCTGTCTTTGTGT
GGTCACATCACATCGGGGGAA

Sequence 1523

CGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTT
TTTTTTTTTTGCTTCTGGTAAAAAGAAGCATGTTACAATTTCCCCCCAATTCACATA
GGACTCTAAGAACATATTTTAAATCAGTGCTTCCATACAGGAACGAAATCCACTATTTTA
GAATTCTAAATCTTGTTGAAAAGCAACCTTATCTGAAGAGTAAACAAGAAGATTCAAAAGT
TAAGTATCAGTGCAGTCCAGAGCCCCTAAATGAATAAACTGAATGTATCTTAAAAATAG
GATTTGCACACCAGTAAGAGACTTGTTCACGATTCTGGGGAGGAGGGAAGAACTGTAAG
AGGGAGAGAAAAGGGAAGAAAAACAAGAAGAAAAATAATNGGAAAAAAAAAAAAAGAAAGA
AAGGTTTGTTAGCTCAAAG

Sequence 1524

ACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAATTGAGCTTAG
TGATATTAACCTTGGTAAATTAAGCCAGTTTGTCTCTTTGCTTTATCTGTCTTGTGGAATC
TGTATCAGTGGAATTAATAGTCTTTACATTTGATGAACCCTGTTTAGGTGTTGGAAT
ACCCATCTATTTGTTAAAAAGGCAAGGTCCCATGATTTAGTGAATGGGGGATACAGACAG
CCTTTATTCAAGTAACTGAATAAACAAAAGAATTAGAGAGTGTGATGAGTTTGAATAAAA
AATATAGNTCATAAAAACCAGAAATGTGATAGAGCATAGTGGCTGGAAGAAAGTTACCCA
AGTGGCTTGGGTAGTCAATGAAGTTGACTCCAACATGCAGTAGTACGCCGGGTCTTAAGA
TAGAGATTAAGTCATGGTTTAAATGAGGAACAATCAGTAA

Sequence 1525

CCGCGGTGGCGGCCGCCGGGCAGGGTACACCACTGTGCCTGCTTTGAATCCTTTACGAA
GAGAAAAAAATTAAGAAAGCCTTTAGATTTATCCAATGTTTACTACTGGGATTGCTT
AAAGTGAGGCCCTCCAACACCAGGGGGTTAATTCCTGTGATTGTGAAAGGGGCTACTTC
CAAGGCATCTTCATGCAGGCAGCCCTTTG

Sequence 1526

GAGCNCCCCGCGGTGGCGGCCGNTGTACTTTTTTTTTTTTTTTTGCTTNTTAATTGGA
TGCCTGGAGACAATTCCATTTCATTACCTTATTGGCATGACNAGATATACAAGGGCTGC
CAATGTCAATACATTAAGACTGAGCGTGCTGGAGCAGCAGCCAGGGTTCAGGGCACTGCT
GTGTCTCTGCGCCACGGTGCACAAAGGCAGNTTCAAAGCATTTCAGCATGATCGCTTC
CCTCTCCGCTCCTGGGGAGAGAAGGATCCTGCACACCACAGGCAAAATCATGCTGAAAT
TGAGNGNGNCCTTTGGGACTCCCATCCCATCACAGTCTTGGGAT

Sequence 1527

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGTGGATATTGGTTGAACA
AACAGGTGGGCAAAGTGAGGAAGATAAGAAGTCCATCCGTTTCAAGTTTCCCCACTGCGGAG
GGAATAACACTGTCTTTCCACAGGTCACAGACTGGGATGAGCAACGGGCTGAAGGCACGT
TTCCCGGGAAGATCTGAAGTGGCTGCATCTCCCTTTCTCTGTCTCCATCCTTCTCCCA

TABLE 1
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AGATGGTGAAGGGGGACCTGGTNCTG

Sequence 1528

AGGTACGCGGGATGGCACATANGACATCAGCTAGGCTTTTGGGAATCGTTTGTGTTCTTT
GTGGAAATGTCTTTAGAAGCACCCATGAAGTAGTGTGTTGAGCTGTGCACACAGAAAA
CAGGCTCTGCCTTCACATGTGAGACGGTGGACTTTTCTNTGGACAAAATGACAGCATNC
TGGCGACTCCACAGTGGAGCTGAGCGCCACTCCCTGTAGCCCGATCTGGGACTGAAACGC
TTACACCTCTGCCTTAGAAGGAGTCCCCNTGCC

Sequence 1529

CCGCGGTGGCGGCCCGGGCAGGGTACGCGGGGGAATTAGTCCGAGTGGAGAGAGCGA
GCTGAGTGGTTGTGTGGTTCGCGTCTCGGAAACCGGGTAGGCGCTTGCAGCATGGCTGACC
AACCTGACTGAAAGAGCAGATTTGCAGAATTTCAAAGAAAGCTTTTTTCACTATTTTGA
CAAAAGATGGGTGGATGNGAATTTAACCAACCAAAGGGAATTTGGGGAACCTGTAATG
AGGATCTTTTTGGGCCAGAATCCCCACAAGCAAGAAGTTTACCAGGGAACATTGAT
TTAATGGAAAGTAAGAATGCCTTGATTGGTTAAATTGGCACCAATTTGGACTTTCCCTTG
AATTTCTTGACAAATGGATGGGCCAAGGAAAAAATTGGAAANGACCCCAGNACCNGTTG
GAAGGAAAGGAAAA

Sequence 1530

CCGCGGTGGCGGCCGAGGTACGCGGGTGTCTTTTTGTTCAAAGTCTATTTTTATTCT
TGATATTTTTCTTTTTTTTTTTTTTGNNGATGGGGACTTGTGAATTTTCTAAAGGTG
CTATTTAACATGGGAGGAGAGCGTGTGCGGNTNCANCCCCAACCCGCTGCTNACTTTTCAN
CCNNTTTTCAACNGNCTNTGGGTTTTTAANACCCTNGGNTTTNTACCCNNTCCTTTGNA
AANCCCTNNNCCNAANNNGNGGGGCAANANCCNGNGGGCCNCTANAAAAANANCTTGCGG
CCCTGTCCCCCGGGGTTTTGAGGACAANTTTNCCCAAAGCNNAAAAAANAGANGTTTTTT
CNCNCTCNNCTCCTGGNGGGGGGGGGGNGAAAAAANNTTTTTTTTCCCN
GNNNNGGGGNGGNNNCTTNAAAAAAAAAAANAATGTCCCCCCCCCGNNNNGTGGGCG
NNAATTTTNTTANAATATTTTTNNCCCCCCCCCCCCCCCCCGGGGGGGG

Sequence 1531

ATAGGGCGAATTGGAGCTCCCCGCGGNGGCGGCCGAGGTACCATTCGGGTCTATCCGCAG
AAATTCCTCATAGATGGCAACTCTGTCTACTCTCCGAGCCAGTGGCGAGAAGTTACACAG
GGAGTCCACCCCGGTGTGGTGCCTGTTGGGACAGACCTGAATGTTGAACTTGACAGTC
AGAAAAATAACTCTTGATGCTGCTGTTTCGGAAGAGTTGGTTGAGCGCATCCTCAATATT
CCTTTGTTCTCTGTAATTGGTGGTGCCTGGCTGGGCTTTGCTGGAATATGGTAG
GTTGGTGTATGGTGAATTCAGGTAGAAGTGCTGGGTGCTGGAGCTGCTTGTGGTTGATA
AACTGATGACTCCATTTCTGTCACATGGATGTCCACCACTGGTAGGTGGAGCCCAGCCA
ATGGGAATGAGGCATTGAGGTCTTATCTAGAAAGACTTGCTCCACCAGGCTGGGGTCCA
AATTGGAG

Sequence 1532

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGAAGGTCCCGGCAGCACGCACGGA
AGAAGACGGACCCCGCGATGAGGGCGGCGGCAAGGAGCACCTTCATGTTGCGTTCCGAGA
GGCGCAGCATCCACAGGCCCGCGTACAGACTGGTTTGGTAAATGCTAACTTTTGTGTC
TTTTGCCTTTTTAAAGGAATTGTTAACATTGGAATTGAGGGTATGTACCT

Sequence 1533

AGGTTTTGGGCGATCGTTTTCATACGAAATATTTGAGATGCTTTAGATGTGTGTGCATGT
CAGCTGCCACCTGAAAGAAAGGCCTCATTAAGATTTTCACTGATTAACCTCTTGATTGT
TCTTGGGATCTCAGATGGGAATTCACGCTGCTTGCTGCAGAGCTCTTGGGCTAAGTGTAT
TTTCTTAATTACTGAGAAATGCGTGTATCAGTAAGCAGTGAAAAGTCTTGAAAAAATA
AGTAATTTTAAAAAANGTCTGCCCG

Sequence 1534

NCGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTT
TTTTTTTTTTTTTGGNGGNGTTTTTCATTTTCTTCTGGAAGTAAATTTTACTTCT
GGCCTTGGTGGTCTTTGAGGGTCTACATCAGCCTNATCTTGTCCACTGCCAGCTCCTTGA

TABLE 1

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GACTTTCTTTCTTGTCTAGGACCAGTTGAAGCTCATTATTAACCTGCTGCAGCTCCTCA
CCATTCTCCTCATCGNGCCTCCATTTACACGAGCAGGGCGTGCCTGCTGCTCACTGTGA
TCCAAAATCTCCTNGACTTGCTCAGGGGCATNTGTAGCCTCC

Sequence 1535

CACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTGGTG
TTTTTTGGAAAAGTTACATTTAGATCTATTCTGAAGCTGTTCATTTTAACAAATAAAAT
GTTACAGGTTTCACATGATTTATTGCAAAAAAAAAAAAAAAAAAAGTACTGTCTGTGA
ACAGCAAGGAAAAATAGATTACACCTAAGAGATGAAATTGGCATAGGCGAGAAGTCAGAA
AAATAATCTATACAGCTTGCATGGTTGGGGAGTTAGGAGAGGCCAAGGCCACGTGCACGT
AGAGCAAGAGGTAGAAGAGGCCCGGGGGCTAGAGCGCACOCTGGTGGATAGTGTGAGAAT
TTCACACTGGCTCAAGCCTTGAAGACCACCCAGGGGTGCGCCTTAGCAACGCACTTATG
CAAGACCCCAACAACCTGGCCCTTGAAAGGAGCTTTTTACTGGTGGGATGTG

Sequence 1536

AGGTACTAATATCCCTTAATGGCAGAATGTGATAATCATGGAATTAATTATTGCTAAAGT
AGTTTTCAAATAAAAAAAGAAAAAGAAAAACAAACAAATTAACCTTGACACAATCTGA
CCAAACACGTGTCAATTTACAATTTCAAGGTTATTTTACAAAATACCTACATTTACACAA
TAGGCTCCCGGCAGCATTTCAGACAAATGTTCTTTTAATTTATCCTGACATGCTATAAA
TGAATAAATTACACTATTTTAAAAATTATCATCAGTAAGTTTTCTTTCTCATGGGGGT
CAANAGCAAAAAAGAAAAATNNAGGCNTGCCAAAGGAAGGATTTGGAGAGGGGAAAGCCGC
CACGCACCACAGTATAACCTTAAATAAACAGGGAGGGGGCTGGGGGGAGGGGGTCAAC
AAATTCACCTGAAACCCTCACAACAAGTGGTGGATGCCTCTTCCAAAGGGGGGNGGAAAA
GGTTCAANCTTGGCTTTTATTAGGCCCANTTTCAAAAAAGGTATTTTTAAAGNAAAAA
ATGGTTTTTGGTANGGGGAAAAA

Sequence 1537

NCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTCAAACACCTCATGA
GGCTGGCCAGAGATGACACCACTGCCCGGATGCAAGGGGGCAGCCTTGCTTTGGACCCC
GTTCTGAATCTCAGGCTTCATCTATTAGGCACACTGAGCAGAAACACTCCTCCCTGCCAC
TTCCGAGTTGCAGCAAAAAAGGGTCTAACTATGATTTAAAGCAAATAATTTTAAACTTCAA
ATTTTCATTACTGTCACTTATGAGGACCAATAATGTAATGACTAAGACATCAAATTA
CATGTAATATGAATAAAACCAGTAAGAAAATGATAGTTACTTATAATTGGATCAACATAC
AAAAAGAACGTCAATTTGGCCAAAGTAAAACGGTTAAAAAATAGTGTCTATAAAATCACC
ATATAAAATCTTAGTATGTACCTGCCCG

Sequence 1538

CCGCGGTGGCGGCCGCCCGGGCATGGTACAAAACAAATTCAAAGGGTTAAGAATTTCAAG
TTGGTAGCTTCAGAGCATTAAAGCCCCAAATGTGGGGTCCCTTCTGAGCCCAGGATTATGT
GTGACTGCACTGGTCACATTGCCATGAAGCCAGCCCTGGTGGTTGGTAGAGGGGTGGGCA
CTGGACCTAAGCAGGGCCAATCAGAGCCATTCTGGAAATGGATATATAAATATTAGGAA
TGCAAAGTTATTTATTTTGTAGAGTTTGAACAACNGTGATCTGTAGAAAACCAGTCACA
TTTCCTTAAGGATGCATNAATAAATATGAGCTAAATGTAATAATTAGAATTTGGTTTCC
AAGCAGATTCCATGCTCTAATTCCCTGGATAGGTGAATATAATAAGATGATNTATCCNTG
AATAAGNTNCTTTTNCCTTTGCCCAAGGGGACANGATGGTAAATAAGGGCTACTAAATCAA
GTTGNCCTTTAAATAA

Sequence 1539

CCGCGGTGGCGGCCGCCCGGGCAGGTACAAAACAAATTCAAAGGGTTAAGAATTTCAAGT
TGGTAGCTTCAGAGCATTAAAGCCCCAAATGTGGGGTCCCTTCTGAGCCCAGGATTATGTG
TGA CTGCACTGGTCACATTGCCATGAAGCCAGCCCTGGTGGTTGGTAGAGGGGTGGGCAC
TGGACCTAAGCAGGGCCAATCAGAGCCATTCTGGAAATGGATATATAAATATTAGGAAT
GCAAAGT

Sequence 1540

GTA CTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCATGGCCCTTCCTT
TGAAATCATTTTTTCTTCCAGGCCCTTGCCTCCGGGCCTGGGAGACAGAATGAGAGACA

TABLE 1

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GCCCCAAGGATCTGTGATACACTTTTCAGGGTCATTTTTTCCTTGTCCTGCCAGTCCAGG
CACACCTTTTGTGTTCTCTCCTGAACATACTTTCTCATTTTTTCACAAATATGAAAAGGCTG
ATAATTTTTCAAACCTTTAAGTTCTCTTTCTTTTGATTGACCATTTTGTCTTTAAATCA
TTTTTCTTCTCACATTTTATTATTATAAACATTCAAGGGAAACCAAGCCATTATTTTGCT
TAGAAATTTATTACAGCCAGCTGGGGCGGTGGTGGCTCACACCTGTAATCCCAGCACTTTG
GGAGGCCCGNGGTGGGGTAAGATCACCTGAGGTCAAGGAGTTTCGAGACCAGCCTGACC
AATAATNGGTGAAACACTTGNCTTNTACTTAAAAAATACCAAATTT

Sequence 1541

GGAGCTAAACCCCGNGGCGGCGGAGGTACTTACCCTCAATTTCAATGTTAACAATTTCT
TTAAAAAGGCACAAAGACACAAAAAGNTTAGCATTTACCAAACAGTCTGTACGCGGGGCCT
GTGGATGCTGCGCCTCTCCGAACGCAGCATGAAGGTGCTCCTTGCCGCCGCCCTCATCGC
GGGGTCCGNCTTCTTCTGCTGCTGCCGGGACCTTCT

Sequence 1542

CCGCGGTGGCGGCCGAGGTACACAAACGAGATGCTACCTAGGAGAAGGGTATTCTTTTCA
CTATTCTTTCAAATTTTCTGTATGTTCGAACATTTTCATAGTAGAAAGTTGGGGGAAAA
TCTGTTTCATAAACATTTCTCAGCAGCAGTCCAGTCTATTGCATTTTAATTGGTTGTGA
TATCATTGTTTTATGCAATACGTTCTCAACAAGTATATCCTCCGGCAAACCTGAACAAGGA
CCAAGTCTGTTCTGCCTACAGCTCTGCTTCTCATAGCTGCTTTCCAGAACGTGACTCTT
GCAAATTATCAAGAAAGGGGAACTAATCTAAGGGATCCCAGATCAACAGCCTNATGAAGA
CCTTAATTTATGNTTCTAANATAAAAGATAGGAAGTTTTCAAAAAAGCCCCTGCTTAC
ANAGGATCAANANCAGGGGGTGGGCCCTGCTGGGCTTNCAGTGGGATTTTTTGAGCATTN
CTTCCCNGGNGGCNCGNAAGGGGNGTGNGTGAGCCCNAGGGNGGAAAAAATTT

Sequence 1543

CCGCGGTGGCGGCCGAGGTACTCCTTCGTAAACCATGGAGAGCCAGCCCAATGCACAGCA
GTGGATATCATCTTTCTCAGAGTCCAGTATCACAGAATCACGACTTTGTCCAGCTGCAGG
TGCCGTGCAGGTACACTGGCTAACTACTTCTGTGATGGGCTCTTCTTTCTGAGGTTCTGC
CAACTTGTCTACTACATAGGGTTGATCATCCTGTTTCAGGAAATATTTCTTTCAATTTGCT
TGAGCTTAATATTGTAATTTGTATTTGATCTGCTGGGTCTTTGGAGTCAGGACTGGTTT
ATCAAGCAGTTTGATCTTCTGAGGTCTGGTATTGTAGTTTGCTGGCCACAGAACCTTCA
CGTGTATTCACAGCCTCAATGCCATAAGGAACTCTTT

Sequence 1544

CCGCGGTGGCGGCCGAGGTACTCCTTCGTAAACCATGGAGAGCCAGCCCAATGCACAGCA
GTGGATATCATCTTTCTCAGAGTCCAGTATCACAGAATCACGACTTTGTCCAGCTGCAG
GTGCCTGCAGGTACACTGGCTAACTACTTCTGTGATGGGCTCTTCTTTCTGAGGTTCTG
CCAACCTGTCTACTACATAGGGTTGATCATCCTGTTTCAGGAAATATTTCTTTCAATTTGCT
CTGAGCTTAATATTGTAATTTGTATTTGATCTGCTGGGTCTTTGGAGTCAGGACTGGTTT
TATCAAGCAGTTTGATCTTCTGAGGTCTGGTATTGTAGTTTGCTGGCCACAGAACCTTC
ACGTGTATTCACAGCCTCAATGCCATAAGGAACTCTTTAAGAAGTTCTGACAGCTGGT
CATGTTAGGTATAAGAACAGGGTGCCCTTATCACTGGTGGATTTCAATTTCT

Sequence 1545

CGAGGTACTTTTTTTTTTTTTTTTTTTTTTGGGGAGTTTGTGTTTTTAACCAAATTATNA
TAGATGGAAGCATTAGGCAGCTGAATGTTCAATTTGCCTTCANACATCATNTCCTATTTCA
TTTGCTNGNCTCGCATTAAAAAGAATCATTTATCAGCAAAAGCATCATTTATTTGTTTAA
ATGACAAGGTTTAGCTAGCAGAGNAGAGTTTGCNATGCTTTTAAANAATAACNTTTGAC
TTTTCTTCAAGACACTACAAAACCATTTGTTCAAAAAAGGCTGCCCAANGTCATTTANAA
GAATATTTTTTCAAAANGTCTATTTCTNTATTTTTAAAAAAGCTTGCCTTTACCAATCTTT
GGTTTTGAATTCACCTGGGCCTTTTCTTTTAAACCTTGAAAGGGCTTAAA

Sequence 1546

GGCGGCGGCCGAGGNACAAGNANCNNTTGGNGGAGGGGGGNGAAACCCAANACCCGAACN
NGGGACTGNGCAGACAAGCTATATCTTAANCCNCNCCGGGCCAGACCNCNAGCAAGGN
GAGGAAGCAAAAGNCCACAGNNACNGGGGCAGGNAANNGGNANAAANGAGGGNGNGGGGC

TABLE 1

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NGGNTGCGGTGNTTACAGGGGGAANCCCAACACCCCGGGAGGNCGAGGCAGGAGGANCG
CCCGAGCCCAGGAGGNNAGACCAGCCNGGGCAACANGGNGAAACCCNGGCNCNACAAAA
AANACAAAANNAGCNGGGCANGGNGGNNNGGGCCAGNGANCCAGCNANNNNGGGAGGCN
GAGGNGGGAGAAAANGCNGAGCCCAGGAGGCAGAGGNNGCAAGNGAGCCCCAAGAANGCGC
CACCGGAACNCCAGCCCAGGCAACAGAANGAGAACCCGGNCCNACANNAAAAAAAAAAG
AAAANGAAAAAGAAAAANGNCCNGGCCGGCCGGGCCGGNCCNAGAACCCANGGGGAAC
CCCCCGGGCNGCAGGAANNCCGAAANCAAGCCAACNGANACCGGNCAACCCCGNGGGGG
GGGCCNNGNACCCANNNNNNNNGGNNCCNNAAGGGGAGGGGNAANGGCNCGCCNNGNC
GNAACAAGGGGCAAAAGCNGGNNCCNGGGGGGAAANNNGGNANCCNCGNCCNCAANNCCC
NNNAAAAAACNAANCCGGAAGCAAAAGGNAANNCCGGGGGG

Sequence 1547

AACACCACCGCGGNGGCCGGCCGNCGGGCAGGNACTTTNNTTNGGGGGNTAAAAACCCC
CCNAAAAAACNGGGCCCTAGNAGAAGGCAACNTTCATTNCAAACGAGGGGGCCCCNGCCCC
GNGAAAAAACGGGGAACACGACGNCNAAGGCAGANCCCCGNAAGNACCTACNNNGGACAG
CCGGGGCAGGCGNGCAAANNNTTGGGCNNGGCCNCGCAAAGCACAAAGGGGGACACANA
ACCCACTGCCACGGCGCAGGAGAAAAAAAGAAACAGCAAANACGAGGGGACAN

Sequence 1548

CCGGGCAGGTACATCANTTNTGCTGAGGGACATCCAGGACAAGGTCACCACACTCTACAA
AGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGACGATGGACTC
CGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCAGCCTGGTGGAGCA
AGTCTTTCTAGATAAGACCTGAATGCCTCATTCCATTGGCTGGGCTCCACCTACCAAGT
GGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACCAACAAGCAGCTCCAG
CACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACCATATTTCCAGGACAAAGC
CCAGCCAGGCACCACCAATTACCAGAGGAACAAAAGGAATATTGAGGATGCGGTGAGAAG
GGGGTGCTCAACCAACTCTTCCGAAACAGCAGCATCAAGAGTTATTTTCTGACTGTCAA
GTTTCAACATTCAAGTCTGTCCCCAACAGGCACCACACCGGGGTGGACTCCCTGTGTAAC
TTCTCGCCACTGGCTCGGAGAGTAGACAGAGTTGCCATTCTATGAGGAATTTCTGCGGAT
GACCCGGAATGGTACCTTNGGCCGNTTCTAGAAGTAGGNGGATCCCCCGGG

Sequence 1549

CCGCGGTGGCGGCCGAGGTACGCGGGGCTTGCATCTCTGGGGCCAAGGAGTGGTGGGTGA
GATCTTCCATGGCCCTGGCATGGGTGATATAAGCGGGACCGGTAAGGTGGTGGAGCTCTT
ACCAGACCCTGCANAACCCTCTCCGTGGTGTGAACTTCTGGAACCAAGGGTGTTCATG
TTTTCTCATAATGCAGGTTGGTATGGTGAAGTTGAGGGTGAACGGCACCAGGAGAGGG
CCAGCAGTTGTGGGGCTGGGGAGGGAGGATGGAGTCCCTGACCCAAGGTCCACTGTGGAG
GTCCCAGGAGCTGAAAAAAGT

Sequence 1550

AGGTACTTTACAAACAAGTCTGAAAAAGGAGGGAGTAAAGTATGGAAGAATGATCTCTGG
ATGTTGCTACTGGCCTCAAAAAAGCAGTGCTACAGATTTCTGTGTGAAGAGAATACGCTG
TTCACACATTTTCTATTTCCAGGCATGAAAATATTCTATTGGGTAGAAGAAATAGGAAA
ATCTCTTATGACAAATGAAAGACAGGTGCAAACACACCAATCCCTGTCTAGCAGTATAAA
GCATATTGGGCTCAGAATTTGTCTGTTGCTAGCACCTGGCTTTCATACTATATCCTTATC
AAATAATCAGATTGAAAGTCCAAATCATTCTTAAGCAAGCAAAAATCCTCAGTGGCCATA
CCTCA

Sequence 1551

GGCGGCCGCTCTAGAAGTACAGGAGGAGGAGTAAAGTATGGAAGAATGATCTCTGG
GANACCGNCGACCNCAGGGGGGNNCCCGGNACCCAGCGNNNGCCCCNAAAGAGAGGGNN
AANNGCGCGCNGGCGNAANCANGGNCANAGCNGNNCCNNGNGGAAANNNGNNANCCGCN
CACNTTTTNNTTTNNCNGACGAGCCGGGNGCANAACCCCCAAANANA

Sequence 1552

CCGGGCAGGTACGCGGGCTGCCTGGGGATGGCAGCCGCGTGCGTTCCCTGTGCTGTCCTG
TAGGGTTGTGGTGGCTTTCTGATATTCAGGTTGGTCCCTTTTCTTTTGGATGGGC

TABLE 1

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TTTCGAGGTTGGGAGAGGAAGCTCAGGGATGGAAGTGAATAACATATGTGAGATGTTTC
CTTGTTTGTGCTCATGGAGGTTTCATTTCTGAAGTCTTTTCTTGGGAGGGAAAAGGATG
TGTGGATATATGAGGTGACTCTAGAACCCTCATTTTATGGATGAAGAACTGTGATTCAC
AGAGGGAGAGTGATTTGTCCAGTGTACGTGGGGAGCTGGCCGGGGAGCCAGACCTCCTG
TACCTCGGCC

Sequence 1553

TACTATAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACATTTCCATG
GGCCCTGTTCCCATTTGATGTATACTGCTTCCTTACTAACAGTGAGGGATGACTTTCATCA
GTCTTTTATCACCTGAACAGTCTTCCGGCCATAATGATAGTAACTATAAGCTGATGCAGC
TGTGGTGAAAGCTGTAAAACACCTTTTATGGAAGAAAAGAAATAAAATGATGTTGTCAAG
TCTAAAAAATAGTAGCAACGGGAATCATAATGAATACATGCAATGAATTTAAATGTAAA
AATGAATTTAAAAAGTAAAAAGGGCTCTGTGGTGTAATTTTCTTAACTACAAGAGTCTA
AATACACTGCTTTTCTTTAAGAGTTCATTTTAATTAGTAACGTCAAACAAAATTATTCTA
GATAATGAGCCCTACAAA

Sequence 1554

ATCGACTNCTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTACGC
GGGTGGCCAGATTAATTTTCCAGCCAATAGAGGAAAGTTTTATATATTTTTTGCTAAGG
TGCTGGAGAGGGGAAAGGATGCCACACTTCAGAAGCAGGAGGACGTTGCTGTGGCTGCTG
CAGTCTTGAGCCCCCTGCTCAAGCTGGCCCTGCTGGCCGGCCTGACCATCACTGTTTTTG
GCTTTCCTATTCTCAGCTGGCTCTGGATATCTACGGAGGGACCATGCTTAGCTCAGGAT
CCGGTCCTGTTTTGCTGCGTTCCCTACTGTCTCTATGTTCTCCTGCTTGCCATCAATGGAG
TGACAGAAGTGTTCACATTTGCTGCCATGAGCAAAGAGGAGGTGACAGGTACCT

Sequence 1555

CCGCGGTGGCCCCGCCGGGCAGGTACAGCAAAAAAGAACTGAGAAGCCCCAACTGCTTT
CTTGTTAACATCCACTTATCCAACCAATGTGGAACTTCTTATACTTGGTTCCATTATGA
AGTTGGACAATTGCTGCTATCACACCTGGCAGGTAAACCAATGCCAAGAGAGTGAGGAA
ACCATTTGGCAAGACTTTGTTGATGACCAGGATTGGAATTTTATAAAAATATTGTTGATGG
GAAGTTGCTAAAGGGTGAATTACTTCCCTCAGAAGAGTGTAAGAAAAGTCAGAGATGCT
ATAATAGCAGCTATTTTAATTGGCAAGTGCCACTGTGGAAAGAGTTCCTGTGTGTGCTGA
AGTTCTGAAGGACAGTCAAATTCATCAGCATGGGGCTGTTTGGTGCAAATGCAAAAGCAC
AGGTCTTTTAG

Sequence 1556

ATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGTCCACATCCCGAAGGCCATAGCGTC
GAGCAAGGTCACATGGATGGCAGCACCTTACCACTCAGGCTCAGGATATTGGGATCTGTT
GCCAAAGCCACCACACATTTGCCACTCAATTCTGTGGTTTCCGCAGATGAGAAGGCTGAT
TTGAACTGCTTCAACACAGGATCCTGCAGGACCTCCTCCTTTGCCATATGCTCCTTCAGC
AGTTCTGTCTGCACAATCCCCGGCCACAGAGACACACAGCTGACCCCATGGCGCCGCAGC
TCGTGGGCACAGTCAGCAGCCAGCTTGTCACACGCAGCTTTGCCACACCATAGGGGACA
TTGAACATATACTGCAGGCTTCTGGGGAGGAGATGACCACGATNAGCCCCCTGGCCAGCT
GGTACCT

Sequence 1557

CTACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGGGT
CCTGGTGCTGCGGCCACACCACCTGGGGTGCTCATTGACAGAGCTGCCATAATGAACCT
GAAAGGACGGGAATCACCGAGGGAAGCTGGGGCTCCCCTGCCACAGGAGGATCCCCG
TTCTTCAAGCTTCTCTGCTCAGTGTCTACTAACGACCGACATTTGCTAATGTAAATAATA
GTAAATTATTGAGAATTCTAATCTTTTACACAGTCTGTTTTTAATCTATTTTAATTA
TAAATCTATGACT

Sequence 1558

CCGCGGTGGCGGCCGGGGGCCATTGAGACTGCCATGGAAGACTTGAAAGGTACGTAGCT
GAGACTTCTGGAGAGACCATTCAAGGCTTCTGGCTCTTGACAAAGATAGACCACTGGAAC
CAATGAGGAAGGAGAGAATTCTACTGGTCACAGACAAGACTCTCTTGATCTGCAAATACG

TABLE 1
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ACTTCATCATGCTGAGTTGTGTGCAGCTGCAGCGGATTCCTCTGAGCGCTGTCTATCGCA
TCTGCCTGGGCAAGTTCACCTTCCCTGGGATGTCCCTGGACAAGAGACAAGGAGAAGGCC
TTAGGATCTACTGGGGGAGTCCGGAGGAGCAGTCCCTTCTGTCCCGCTGGAACCCATGGT
CCACTGAAGTTCCTTATGCTACTTTCACTGAGCATCCTATGAAATACACCAGTGAGAAAT
TCCTTGAAATTTGCAAGTTGTCTGGGTTTCATG

Sequence 1559

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTCCAGGCACAGCTAA
TTTTACTTTTTATTTTCTTGAGACAGGTCTCACTCTGTTGCCAGGCTGGTCTTGAAGTC
TTGGCCTCAAGTGATCCTCCAGCCATGAGCCACTGTAAATGTCTGGGAATGCCAACTTGA
AGCCCAGCTGGTCAGAAGTTCTAGAGGCCAGACTTGCAACTGGTGTCTGAAGGGATGGC
AGTCTTGGGACTGAGCCCTCAACCTGAGGGATCTGATGCTATTTCCAGGCAGATAGTGT
CAGAATTAATTGGAGGATACCGCAGTTAGTGTCTGCTGCAGAACTGATTGCTTGCTTGC
TGGTAGGGGGGAAATCCCCACATATTGGGGGGGTATTTGAAGTCTTTTGGTGTGACTCT
TACTGNGTTTNGTTGGTTTTTCATGTGAAGAGCAGAGGGGAAAAGCAAGGGA

Sequence 1560

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTACTGACCCAACAAGTGTGACTA
GCTGGCCACGTCATTCAGGGCTGGTGTGGCATTATGTGTGTGTGTGTGTGTGTGTGTTT
TTCTGTTTGGCCAGCAGTGCATTGTGGGTTCCAAGAGTGGGTAGTGTGTGTATGTGTGT
GTGTCAGAGGGAGACCTGGCAGGCACCTNNTTGAGAGTAGCTGTGGTCAGAGCTGTTTGG
TCAGTGCATTATGTTGAATGAGGTCCAGGAACCCAGAGCCACCCAGCAGACACCACTGTG
GCTTGCCAGCTGCCAAGATGGAGAAGCATGTGCCCTGTAGAGCGTCTTCCAGAACCCAG
ACCCCGAGCCACTCGCTTCTCTGTGCTGNGACAACATTGGTGCCAGGGGAGATNGTTNT
TTTTTCAAAGGGGACCTACTGTAGCCCCTTTAAAT

Sequence 1561

CCACTCACTATAGGGCTGAATTGGAGCTCCCCGCGGTGGCGGCCGGAAGAGCAACCGAGA
TGAAGGTGAAGATGCTGAGCCGGAATCCGGACAATTATGTCCGCGAAACCAAGTTGGACT
TACAGAGAGTTCCAAGAACTATGATCCTGCTTTACATCCTTTTGAAGTCCCACTGAGAA
TATGTAAGAGCTTTAAATGCTACCAAAGTGAACGAGTATTTGCAAAACCATTCCTTGCT
TCGCTGGATGGTCAACGTGATGGAGTCAATTGCTTGGCAAAGCATCCAGAGAAGCTGGCT
ACTGTCCTTTCTGGGGCGTGTGATGGAGAGGTTAGAATTTGGAATCTAACTCAGCGGAAT
TGTATCCGTTACCT

Sequence 1562

GGGCGNGTTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCTTCTGCCTTCCCCCATATA
CTGAAGTTTGAGAGGCTGGGAAGGTGCGGAATGGGAAAAGGAGCAGCTGCTTATGTTGAG
TTTAACTTCTCTGGGTTTCTCCATCTAGGTCTTGAGTTTCTTCTTCTTCTTCTTCTTCTT
GCTTCTTGTTTAACCTGGTCCCTGTTTCAGGAGAGAAGCCTCATCAGTGCCAAGTCTGT
GGGGAAGACCTTCTCTCAGAGTGGAAGCAGGAATGTGCATATGAGAAAGCATCACCTGCA
GCTGGGAGCAGCTTGGGAGTCAAGAGCAGGAGCAAAGTCTGAGCCACTAATGGGGCAGT
AGTTTGCTTG

Sequence 1563

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCCTTCGTAAACCATGGAGAGC
CAGCCCAATGCACAGCAGTGGATATCATCTTCTCAGAGTCCAGTATCACAGAATCACGA
CTTTGTCCAGCTGCAGGTGCCTGCAGGTCACTGGCTAACTACTTTGTGATGGGCTCTT
CTTCTGAGGTTCTGCCAACTTGTCTACTACATAGGGTTGATCATCCTGTTTCAGGAAATA
TTTCTTTTCAATTTGCTCTGAGCTTAATATTGTAATTTGATTTGATCTGCTGGGTCTTTGG
AGTCAGGACTGGTTTTATCAGCAGTTTGTCTTCTGAGGTCTGGTATGTAGTTTGTCTGGC
CCACAGAACCTTCAAGTGTATTACAGCCTCAATGCCATAAGGAACTCTTTTAGAAGTT
CTGACAGCTGTTTCATGTAGGTATAAGACAGGTGCCTTATCACTGTGGATTTCATTTCTTG

Sequence 1564

CCGCGGTGGCGGCCGAGGTACAAATTGTCGTTTTTATTCCTCTTATTGGGATATCATTTT
AAAACTTTATTGGGTTTTTATTGTTGTTGTTTATCCCTAACCCTACAAAGAGCCTTCC

TABLE 1

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TATCCCCCTCGCTGTTGGAGCAAACCTTATACCTTACTTCCAGCAAGCAAAGTGCTTTGA
CTTCTTGCTTCAGTCATCAGCCAGCAAGAGGGAACAAAACCTGTTCTTTTGCAATTTGCCG
CTGAGATATGGCATTGCACTGCTTATATGCCAAGCTAATTTATAGCAAGATATTGATCAA
ATATAGAAAAGTTGATATTCAACCTCACAAGGGCTCTCAAAGTATAATCTTTCTATAGCCA
ACTGCTAATGCAAATTAACATATTTTCAATTTAACATGATTTCAAATCAGTTTTTCAT
ACTACCTTTTGCTGGAAGAACTAAAAATATAGCAAATGCAGAACCAACAATTGAA
TGGGGTAGAAACATTGTAAATATTTACTCTTTGCAAACCTGGTGGGTATTTATTTTGG
CTTCATTTCAATCATTGAAGGTATTTCTTATTGAAATGTACCTGCCCNGGCCGGCCGC
TCTAGAACTAGTGAATCCCCCNGGC

Sequence 1565

ACTACTATAGGGGCGAATTGGAGCTCCACCGCGGTGGCGGCCGCCCGGGCAGGTACTTT
TTGGTGTTTTTGGAAAAGTTACATTTAGATCTATTCTGAAGCTGTTCAATTTTAACAAA
TAAATGTTACAGGTTTACATGATTTATTCGCAAAAAAAAAAAAAAAAAAAGTACTGT
CTGTGAACAGCAAGGAAATATGATTACACCTAAGAGATGAAATTGGCATAGGCGAGAAG
TCAGAAAAATAATCTATACAGCTTGCTGGTGGGGAGTTAGGAGAGGCCAAGGCCACGT
GCACGTAGAGCAAGAGGTAGAAGAGGCCCGGGGCTAGAGCGCACCTGGTGGATAGTGT
GAGAATTTCACTGGCTCAAGCCTGAAGACCACCCAGGGGTGCGCCTTAGCAACGCA
CTTATGCAAGACCCCAACAACCTGGCCCTTGAAAGGAGCTTTTCACTGGTGGGATGTGGCC
CTGCTTGATTTCAGAACCATAGTTTTAACAAGCCANCATTAATCCACAAGTCTTTGCCA
AAGCACTTTAAGCCTNTTGACATTTATTGGAATTAATTTACCTGCAAGGAAAGTTCATAT
ATCTAGCTTTGGTAACCCTACATTCGGGAAAAATGTTTCCATGANATAACTAAAAANCCCC
ATGAATGATACAATCTTGGACAAAACCCAAAGNNGGCATAATTAGCATAAAACCTCAAAT

Sequence 1566

CCCGCGTCCGGCATCTCCCAACGTGACTGACCCGCCGACCACGACCCGCAAAGTGGTCCC
GACGACGCTCACCACCACCAAGCCGCCAGAAACCTGTGAGAGCTTCAACAGCTGTGTTTC
CTGTGTCAACGCCACCTTGACTAATAATATTACCTGCGTCTGGCTAGATTGCCATGAAGC
AAATAAGACCTATTGTTCAAGTGAATTAGTAAGTAATTGTACCCAGAAGACCACTACTGA
CTCCTGTTCTGTAATACCTACCACCCAGTGCCAACCAATTCTACAGCTAAGCCTACAAC
TCGGCCTTCTCTCTACACCTACTCCCTCAGTTGTCACATCAGCAGGTGCAACAAATAC
CACTGTGACTCCAACCTCACAGCCTGAGCGGAAGTCCACCTTTGATGCAGCCAGCTTCAT
TGGAGGAATCGTNCTTGCTTGGGTGTGCAGGCTGTAATTTCTTTCTATAAATTCTG
CAAATCTAAAAGAACG

Sequence 1567

TCGCCNCGCGTCCGGGCAACTGCAGTTGGAAAAAAGATTCAACTTCAAAGCAGAGGATT
TTTGATGAAGAACCAGCTAATGGAGTGAAGATAGAAAGGTTTACAAGGGATGATCCTTGG
TTATCTTCATGTGAAGAAGTGGATGATTGTAAGACCAGTTGGAGAAGCAACAGGAAAAA
CAAGAGATACTTTTGAGGAAGTGGCATTCACTCAAAGGAAAGCAGTTATTCATGAGAGA
GTCTGCAAAAGTGATGAACTGGGGAGAAGAGTGGTCTGAATTCAGTCTATTTTCATCC
CCAGTTATACCCATAAGAAACATTTTCATAAACATGTATCACATGCTAAAAATGGCAT
CTTAATGCTGCTGTAAACAGTCATCAGAAGATTAATGAGAATGAGACACTATATGAAAT
AATGGAATGTGGAACCCCTCAGAGCATTACCTTATTCAGTTTACAAGAACCTCAAA
CA

Sequence 1568

GCTCCATGCCCTTCTCTGAGACGGGGACCAGGGGATGGCAGNCATGCACCTGACAGCCTG
GCCCNAGAAGTCGGTGACCTTTGAGGACGTGGCTGTGTACTTCACCCAGGCGGAATGGGA
TGGCCTGTCCCCTGCACANAGGACCCTGTACAGGGATGNGATGCTGGAGAATTATGGGAA
TGTGGCCTCCCTGGGATTTCACTTCTCAAACCTGCTGTGATCTCACAACCTGGAGGGAGG
AAGTGAGCTGGG

Sequence 1569

CGCGTCCGTTTCTCCTGGCACCTGTATTGATGGCCTTGGCGTTCTGCCTCTGCATGGCT
GAAGCCATCCTACTCTTCTACCTGAACACTCCCTGTTCTTCTTCTGCTCCCGAAAAGCA

TABLE 1
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CGGATCCGGCTCCACTGGGCAGGGCAGACCCTAGCCATCCTCTGTGCAGCTCTGGGCCTG
GGCTTCATCATCTCCAGCAGGACCCGAGTGAGCTGCCTCATCTGGTGTCTGGCACAGC
TGGGTGGGAGCCCTGACACTGCTGGCCACTGCTGTCCAGGCACTGTGTGGGCTCTGCCTC
CTTTGTCCCCGGGCAGCCAGGGTCTCAAGGGTGGCTCGCCTCAAGCTCTACCATCTGACA
TGTGGACTGGGTGGTCTACCTGATGGCTACAGTAACGGTGCTTCTGGGCATGTACTCAGT
ATGGTTCAGGCCAGATCAAAGGTGCGGCCTGGTACCTGTGCCTG

Sequence 1570

CGTCCGCTAAGTTCCAATATTGAAAAATCTGTAAAAGACCTCCAGCGCTGCACAGTGTCT
CTTGACGGTATCGAGTTGTAGTTAAGAAGAGATGGATGCCTCCATTAAGAAAATGAAA
CAAGCCTTTGCTGAATTGGAGAGCTGTTTAATGGATCGAGAAGTGGCGTTGCTTGCTGAA
ATGGACAAAGTGAAAGCTGAAGCAATGGAAATTTTGTCTAGCCGACAAAAGAAGGCTGAA
CTTCTAAGAAGATGACTCATGTGGCTGTTCAAATGTCAGAGCAGCAA

Sequence 1571

GCAGCCGGCCATGCAGGCCGTATCCGAAGTACATGGACCAAATTATCACCTCCAAGGA
GCACCTTGCCAGCAAGATCCGAGCCTTCATCCTCCCAAGGCAGAGGTGTGCGTGCGGAA
CCATGTCCAGCCCTACATCCCATCCATCCTGGAGGCCCTGATGGTCCCCACCAGCCAGGG
CTTCACTGAGGTGCGAGATGTCTTCTCAAGGAGGTACGGACATGAACCTGAACGTCAT
CAACGAGGGCCGGCATTGACAAGCTGGGCGAGTACATGGAGAAGCTGTCCCGGCTTGGCG
TACCACCCCTGAAGATGCAGAGCTGCTATGAGAAGATTGGAGTTCGCTGCGACTGGACG
GGCTGCAGC

Sequence 1572

CCGAACAANGTGGCCACCCAGGTTTTTAACCCAAGTCTAGTGGTCATCCTATTCTTTCCA
CACCAACATGCCAAAAGCCTTACCTNGAAAGAAAATATAATTTGCAAGAAGCATCACAGT
GCCGGGGTCTATATTCTCGATCAGGTTGNTAATTTTCCCATGGGTTTTTGAAGTATAAA
GNCATTGATCTGCTTCTGAGCCATTCCAAATTCTGAAAGTTGGTAAGGATGGTTTCGGN
ACTGTAAAAGTTCTTGGCATCTTCC

Sequence 1573

CGCGTCCNGNCGGAGAAGACAGTAGGGATACTGGATATGGGAGGAGCCTCTCTCCAAAT
TGCTTATGAAGTTCCTACCTCAACCTCTGTCTTCTGCAAAGCAGGAAGAAGCTGCCAA
GATCCTGCTGGCTGAGTTCAACCTGGGCTGTGATGTGCAACACACTGAACACGTGTACAG
GGTTTATGTCACAACTTTTCTGGGTTTCGGAGGCAACTTTGCCCGGCAGCGCTACGAAGA
CCTTGTTCTGAATGAACTCTTAACAAAAACAGATTGCTTGGTCAGAAGACAGGTCTGAG
TCCCGACAATCCATTCTGGATCCCTGCCTGCCAGTGGGACTCACAGATGTGGT

Sequence 1574

CGCCGTCCNGTTTACTTGGAGTGTCCAAAAGTCAAGCAGTAGAGAAATAAGACAAGCTT
TCAAGANNNTGGCATTGAAGTTACATCCTGATAAAAACCCGAATAACCCAAATGCACATG
GCGATTTTTTAAAAATAAATAGAGCATATGAAGTACTCAAAGATGAAGATCTACGGAAAA
AGTATGACAAATATGGAGAAAAGGGACTTGAGGATAATCAAGGTGGCCNGTATGAAAGCT
GGAATATTATCGTTATGATTTTGGTATTTATGATGATGATCCTGAAATCATAACATTGG
AAAGAAGAGAATTTGATGCTGCTGTTAATTCTGGAGAACTGTGGTTTGTAATTTTTAC

Sequence 1575

GAGGCGCTCAACCTACCGAGGCGCCACAACTGTCCGGCCTGCTGGGCTTGTCCCTGCG
CTACAACAGCCTCTCGGAGCTGCGCGCCGCGCAGTTCACGGGGTTAATGCAGCTCACGTG
GCTCTATCTGGATCACAATCACATCTGCTCCGTGCAGGGGGACGCCTTTCAGAACTGCG
CCGAGTTAAGGAACTCACGCTGAGTTCCAACAGATCACCCAACTGCCCAACACCACCTT
CCGGCCCATGCCCAACCTGCGCAGCGTGGACCTCTCGTACAACAAGCTGCAGGCGCTCGC
GCCCCGACCTCTTCCACGGGCTGCGGAAGCTCACCACGCTGCATATGCGGGCCAACGCCAT
CCAGTTTGTGCCCGTGCATCTTCCAGGACTGCCGCAGCCTTCAAGTTTCTCGACATCG
GATACAATCAAGC

Sequence 1576

GACCACGCGTCCGCGCACCGCTTCATTGAGGCTGCAAGAGCACACGGGCACCCACGTGCT

TABLE 1

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GGTCCACTGCAAGATGGGCGTCAGCCGCTCAGCGGCCACAGTGCTGGCCTATGCCATGAA
GCAGTACGAATGCAGCCTGGAGCAGGCCCTGCGCCACGTGCAGGAGCTCCGGCCCATCGC
CCGCCCCAACCCCTGGCTTCTGCGCCAGCTGCAGATCTACCAGGGCATCCTGACGGCCAG
CCGCCAGAGCCATGTCTGGGAGCAGAAAGTGGGTGGGGTCTCCCCAGAGGAGCAGCCAG
CCCCTGAAGTCTCTACACCATTCACCTCTTCCGCCAGAACCTGAGGG

Sequence 1577

CTACACTCAACTTCACCATCTCCAATCTCCAGTATTCACCAGATATGGGCAAGGGCTCAG
CTACATTCAACTCCACCGAGGGGGTCCCTTCAGCACCTGCTCAGACCTTGTTCCAGAAGA
GCAGCATGGGCCCCCTTCTACTTGGGTGGCCAACTGATCTCCCTCAGGCCTGAGAAGGATG
GGGCAGCCACTGGTGTGGACACCACCTGCACCTACCACCTGACCCTGTGGGCCCCCGGC
TGGACATACAGCAGCTTTACTGGGAGCTGAGTCAGCTGACCCATGGTGTCAACCACTGG
GCTTCTATGTCTGGACAGGGATAGCCTCTTCATCAATGGCTATGCACCCCAAGATTTAT
CAATCCGGGGCGAGTACCAGATAAAATTTCCACATTGTCAACTGGAACCTCAGTAATCCAG
ACCCACATNCTCAGAGTACATCACCCTGCTGAGGGACATCCAGGACAAGGTCACACAC
TTTTACAAAGGCAGTCAAACTACATGACACATTCCGCTTCTGCCTGGTCACCACTTGAC
GATGGACTTCCGTGTTGGTCACTGTCAANGCATTGGTCTTCTCAATTG

Sequence 1578

GCGGCCGCGGGCAGGTACCTAACCTACCTTTAAGACTGGGATAACTATTGNNNTNCAAT
AGNTTATACCGGATATAGTTATTTATCGCATGATGAGTAATAGAAAGGAGCTTCACAGC
TTCACCTAAAAATGGGGGTGCGGAACATTAGTTAGTTGGTAGGGTAATGGCCTACCAAGA
CGATGATGTTTAGCCGGGCGGAGAGGCTGTACCT

Sequence 1579

CTCCCCGCGGTGGCGGCCGCGGGCAGGTACCTAACCTACCTTTAAGACTGGGATNTCT
ATTGNTAACAAATAGCTAATACCGGATATAGTTATTTATCGCATGATGAGTAATAGAAAGG
AGCTTCACAGCTTCACTTAAAAATGGGGGTGCGGAACATTAGTTAGTTGGTAGGGTAATG
GCCTACCAAGACGATGATGTTTAGCCGGGCGGAGAGGCTGTACCT

Sequence 1580

CTCCCCGCGGTGGCGGCCGAGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTTGGT
AGGCCNTTNCCTACCAACTAACTAATGTTCCGCACCCCCATTTTAAAGTGAAGCTGTGA
AGCTCCTTTCTATTACTCATCATGCGATAAATACTATATCCGGTATTAGCTATTGTTT
CAATAGTTATCCAGTCTTAAAGGTAGGTTAGGTACCTGCCCG

Sequence 1581

TTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTAACCTACCTTTAAGACTGGGATAACTA
TTGTTNAACAATNNCTAATACCGGATATAGTTATTTATCGCATGATGAGTAATAGAAAGG
AGCTTCACAGCTTCACTTAAAAATGGGGGTGCGGAACATTAGTTAGTTGGTAGGGTAATG
GCCTACCAAGACGATGATGTTTAGCCGGGCGGAGAGGCTGTACCTGCCCG

Sequence 1582

AGGTACAAGCCTCTCGGCCCGGCTAAACATCATCGTCTTGNTAGGCCNTTACCCTACCAA
CTAACTAATGTTCCGCACCCCCATTTTAAAGTGAAGCTGTGAAGCTCCTTTCTATTACTC
ATCATGCGATAAATACTATATCCGGTATTAGCTATTGTTTCCAATAGTTATCCAGTCT
TAAAGGTAGGTTAGGTACCTGCCCG

Sequence 1583

CCGCGGTGGCGGCCGAGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTTTTNGGC
CATTACCTACCAACTAACTAATGTTCCGCACCCCCATTTTAAAGTGAAGCTGTGAAGCT
CCTTTCTATTACTCATCATGCGATAAATACTATATCCGGTATTAGCTATTGTTTCCAAT
AGTTATCCAGTCTTAAAGGTAGGTTAGGTACCTGCCCG

Sequence 1584

TCTTCGANACGNNTTCGGGCGGCTTTTCCCCGGGCAAGGCTTCTAAATCGGGGGGGCTTC
CTTTTAGGGGGTCCGAATTTAAGTGGCNTATAACGGGCANCCTTCGAACCCCCAAAAA
AACTTTG

Sequence 1585

AGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTNNGTAGGCCATTACCCTACCAAC
TAACTAATGTTCCGCACCCCATTTTTAAGTGAAGCTGTGAAGCTCCTTTCTATTACTCA
TCATGCGATAAATAACTATATCCGGTATTAGCTATTGTTTCCAATAGTTATCCAGTCTT
AAAGGTAGGTTAGGTACCTGCCCGG

CGGGCAGGTACCTAACCTACCTTTAAGACTGGGATAACTATTGGAAACAATAGCTAATAC
CGGATATAGTTATTTATCGCATGATGAGTAATAGAAAGGAGCTTCACAGCTTCACTTAAA
AATGGGGGTGCGGAACATTAGTTAGTTGGTAGGGTAATGGCCTACCAAGACGATGATGTT
TAGCCGGGCCGAGAGGCTGTACCTnn

Sequence 1587

AGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTTGGTAGGCCATTACCTACCAAC
TAACTAATGTTCCGCACCCCCATTTTTAAGTGAAGCTGTGAAGCTCCTTTCTATTACTCA
TCATGCGATAAATAACTATATCCGGTATTAGCTATTGTTTCCAATAGTTATCCAGTCTT
AAAGGTAGGTTAGGTACCTGCCCGG

CGGGCAGGTACCTAACCTACCTTTAAGACTGGGATAACTATTGGAAACAATAGCTAATAC
CGGATATAGTTATTTATCGCATGATGAGTAATAGAAAGGAGCTTCACAGCTTCACTTAAA
AATGGGGGTGCGGAACATTAGTTAGTTGGTAGGGTAATGGCCTACCAAGACGATGATGTT
TAGCCGGGCCGAGAGGCTGTACCT

TACCNCGCGTCCGGGGCCCGGATGCTGGGGGCCACCAGGGCCCCGGGATGTGCTGGTCT
 TCATGGATGCCCACTGCGAGTGCCACCCAGGTTGGCTGGAGCCOCTCTCAGCAGAATAG
 CTGGTGACAGGAGCCGGTGGTATCTCCGGTGATAGATGTGATTGACTGGAAGACTTTCC
 GGTATTACCCCTCGAAGGACCTGCAGCGTGGGGTGTTGGACTGGAAGCTGGATTCCATT
 GGGAACCTTTGCCGGAGCATGTGAGGAAGGCCCTCCAGTCCCCAATAAGCCCCATCAGGA
 GCCCTGTGGTGCCCGGAGAGGTGGTGCCATGGACAGACATTACTTCCAAAACACTGGAG
 CGTATGACCCTCTTATGTGCGCTGCGGGGTGGTGAAAACCTCGAACTGTCTTTCAAGGCCCT
 GGCTCTGCGGTGGCTCCGTTGAAATCCTTCCCTGCTCTCGGGTAGGGCACATCTACCGAA
 ATCAGGATGCCCGTCCCGTTTTGACCAGGAGGCCACCTTGAGGAACAAGGTTGCGATTG
 CTGAAGACCTGGCTTGGGGTCA

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGTGATATCCACATATTTTTGAG
AAAAATTCCCAAGCCAGGCGAATGTGGATTGGAATAAGACATAGGCAGTGTATACCACC
ATAGCAATAATGGTTAGTAAGATGGTGTAAACATAGATCGCTCCCAGGGCTCTAAAACA
GCACAGCAGCTAATGATTTGGTATTGATAGTAGAGCCAGGAGAAATATTCCTTCACACGC
CTCAAATCCATGGTTGGCTCCTTCAAGCTGCAGTAAGTTTGTCTAAGAAAGTCCAGGTC
TGGTTCCTCAGCCTTGCTCCTTC

CCCTTTCGAGCGGCCGCCGGGCAGGTACATTTTGAATATCAATTTCTAAATATTTACCC
AAAAATGTATATTTAAAGTTTTTAAACAACCTCTTTCAATCTTGAAAAAGTCCCTCAT
TTTTCTTTTAAAAATCCCATAACAATCAATGTTCTTTTAAAAATAGAATAAATATTTTT
TGTCATTTTAAAGAAGAAATATGGATCTTGAAAAATCATTTGAATATTTTTCTTAAAAAT
AGATTTTGTTTTTTTGTTAATTTGTTTCCAGAAATAAATCATCTAATAAAGTAACCTTGA

TABLE 1
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CCACCGTAAGATTCATATAATCTAATCAAAGATCTACCAACTGGTTGTTTTACCCTGGAT
CCAGATTCACCAATTAACCTAAAATTTTCCCTTGTGGATCTAAAATTTTACCGTTATC
AACAGCTTTGACAACCCAAANTTATTGAAAAATATTTTTTAAGCTTTGAACTTTTAAG
GGTGGGTTAACTTGCATTA

Sequence 1592

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGG
GTTTCCCTGCTATGTTTTGTCACACATCATTGCTGGGAGAGTTCAGTGCTATCCAAGTGA
CTCCCCGGGGAGAGGACAACTGGAAATTTATGCCTGGTGTCTTCTGGACTCCGACCTAT
GCACCTTTTCCCTTGGATGATTTTAACCTGTCTCCTTTTGTGCAATGAACCATAACCAT
GAGTATATCAGCTTTTCTAATTTTGTGAAGTCCCTCAAGTGAATTATCAAACCTAAGGG
TAGTTTTGGGGACCCCATCACAGAAGAGGTCAAACAGGGGGCAGG

Sequence 1593

CCGCGGTGGCGGCCCGCCCGGGCAGGTCTCTTGTCTAGTATACTCAAGGCAGCCTAGTAA
ATTATTATTTATCTATACAATACTGGAAAACTTGTAGACAAAAACATGACTTGAATTGC
TAAAAAAGAGAGGAGAATGAAAACCTCCGGACGCGTGGGTCTGAAGCTT
GACCT

Sequence 1594

CCGCGGTGGCGGCCCGCCCGGGCAGGTAGGCTGTCTACACTGACATCATCCAGGGCAAGCT
GGACCAGCGAAACCAGCTGCTGGAAGTGGATTTCTGCATTGGCCGTGACATCCGAAAGAA
GGATATCAATAATATTGTCAAGACCCTGCATGAATGGTGTGATGGCTGTGAAGCAGTTCT
ACTGGGCATNGAGCAGCAAGTTCTGAGAGCCAACCAGTACCT

Sequence 1595

CCGCGGTGGCGGCCCGCCCGGGCAGGTTTTTTTTTTTTTTTTTCTTTCTGTTTCTTGGACTA
GATAATCTGAAATCAACTGTCTTCACTTTTGCAGACTCTTGTGCCAGCTAAAATGTTCTG
TTGAGCCCCAGAAGCTAATTTCTTTTCACTTATTATGATTTTCACTTTAGAAATTTATT
TTTTAATAAATTTCTACCTCTTTTTATATTCTCCATTTGGTGAGACATTCACATACT
TTCTTCCAGTTTTTTTAGACGTAGTTTCTTGTAGTTCTTTGAGCATATTTAAATAGTT
GATTTAAAGTATTTGTCTAGTTACTCCACCATCTGAGTTTCTCAGGGAAAAATTTCTATT
GCCTCCTTTTTCTGTGTGTGGTCCGNCCATACGGACGCGTGGGTCTGAAGACCT

Sequence 1596

ACTTNTNTTTTTTTTTTTTTTTTTTAAAGCGCCCGGCATTTTCTAAATAAAATCATTT
TATTTGGNAAAAGGGTTTTAACAGNTATACCTTTCTAGCTAAAAGAAAAGAAATAGCGGG
ATGTACCT

Sequence 1597

AGGTACGAAGAGAAAGGAATCAAAGCCTACTANCTCAAAAAATTGTCAAATTGCAAATGA
GGACATCTAGAGAGGAAGAAAGGAAAAAGGAATAAAAAACAGAAACAATTAACAGTAA
GTTCTTAAGTATCAATAATTATTTTAAAGTAAATAGATTAAATTATCTAATCAAAGAC
ATTGAATGGCTGAATGGATTAAAAACAAGATCAACTATACATTGCCCATCAGAGATTCA
TTTAGCTTTAAGGATAAACTGTTGAAAGTGAAAAAGTCAAGGCTGGGCATGGTGG
CTCATGTCTATAATTCCAGCACTTTGGGAGGCCAAGGTGGGCAGATAATCTGAGGTCAGG
AGTTTGA

Sequence 1598

CCGGGCAGGTACCACCTGAAGACCCTCACACTCAACTTCACCATCTCCAATCTCCAGTAT
TCACCAGATATGGGCAAGGGCTCAGCTACATTCAACTCCACCGAGGGGGTCTTCAGCAC
CTGCTCAGACCCTTGTCCAGAAGAGCAGCATGGGCCCTTCTACTTGGGTGCGCAACTG
ATCTCCCTCAGGCCTGAGAAGGATGGGGCAGCCACTGGTGTGGACACCACCGGCACCTAC
CACCTTGACCTGTGGGGCCCCGGGCTGGACATACAGCAGCTTTACTGGGAGCTGAGTCAG
CTGACCCATGGTGTCAACCACTGGGCTTCTATGTCCTGGACAGGGATAGCCTCTTCATC
AATGGCTATGCACCCAGAAATTTAT

Sequence 1599

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACACAGGACCAATGCTGCC

TABLE 1
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CATCCACATGGAATTTACAAACATTCTACAGCGCAAAGGCTCCAGACTTTGATGTCAGT
GGATGATTCTGTGGAGAGGCTGTATAACATGCTCGTGGAGACGGGGGAGCTGGAGAATAC
TTACATCATTTACACCGCCGACCATGGTTACCATATTGGGCAGTTTGGACTGGTCAAGGG
GAAATCCATGCCATATGACTTTGATATTGCTGTGCCTTTTTTTATTCGTGGTCCAAGTGT
AGAACCAGGATCAATAGTCCCACAGATCGTTCTCAACATTGACTTGGCCCCACGATCCT
GGATATTGCTGGGCTCGACACACCTCCTGATGTGGACGGCAAGTCTGTCTCAAACCTCT
GGACCCAGAAAAGCCAG

Sequence 1600

TCNCCGCGGTGGCGGGCCCGGGCAGGTACGTTCACTGTCTCATATAATCNCAGCCTCC
TGTGTGATAGCTGGTGTCTCATCTCCACTTACAGATGAGGAACTGAGGATAAGCAGGGTTG
AATAACTTGCTCGAGATCACAGAGCCACGGGTGGNGAAACAGGATACAAACCTGGTTCTG
TTGACTCTAAGACCATTCAATNTTCTCTGAACTCAGTATTGCACAGTGTAGAAATGC
AGTTTTTAAGACCTCCCAAAGTGACGTGCTGNGTCACTGCCCATCATTAGCTANATTGAG
TAAATTGCTGCTTAGCCCCANTTGTGTTTGACAGAATCAATAGCCCTTGCTGAGGGGCCAN
CAGCCTACGGACACAGGAGCATGCTTCATGGGCAAGACCACCATGCACACTCAGAGGGGA
AGCCACAAGGCAACCTCCACGCCACTTAAGATTTGTAGGGCTCTGAACACATCACCAGAT
ACAGACCACCTACTTATTTTTNCACTGTAATANCAAAGGCAGGAATCTTTTTNCTGTAG
GGTAAAGTTTGGGGG

Sequence 1601

GGCAGGTACAAGGCCCCAAAGAGGAGGAATTCCTTGAGAGGAGCTTGATAGTCTCC
CTCCAGCGGAGAAGCAGGCCAGAGAACTCCGAAGCGGGCCTCCGCCACTTTGAGAGTG
TATGAAACCGTCATGGTGCTGGGAGCCTGGGGCAGGAGGTACAAGAGTTGCCCCAGGG
CTGTCGTTTAGTTCTCCAGACAACCTCCCTTCCACTCTGGTCTCCACACCCAGCCTTCA
CCCTGCGTCAAGTGGACAAG

Sequence 1602

AGGTACCAGTGGGGACTTCTGAAAGAACNNTACTNGTGTCAAGTGGAAAAGCTGGCATTTT
GGGAAATGCTGGTCTCTCAGTCCAGGAGTCAAGGAATATGTTGACTCTCTTAATTT
TTGTAGTCTCAGAGGAAACAGACATTGATGTGGAAACAGTTGTATGCCCCATGGTGGAGG
TGGTATCCATNGGAGCTGTGGCCTTGGTTTTCTGAGTCAGCTAGGACAGAGGATTGTG
ACCCATGTCCAGAACTGGTGGTTTCCACATTAGTCGCTGCTGTGCTTGTGGAAGGATGCA
TGGCTTCTATAGCTGTGGTGTCTTCATCTGTTGTCAATCTCATGTGAGGNACCTGCCC
G

Sequence 1603

CCGGGCAGGTACTGTGATATCCACATATTTTTGAGAAAAATCCCAAGCCAGGCGAATGT
GGATTGGAATAAAGACATAGGCAGTGTATACCACCATAGCAATAATGGTTAGTAAGATGG
TGTTAAACATAGATCGCTCCAGGGCTCTAAACAGCACAGCAGCTAATGATTTGGTATT
GATAGTAGAGCCAGGAGAAATATTCCTTACACGCCTCAAATCCATGGTTGGCTCCTTCA
GGCTGCAGTAAGTTTGTCTTAAGAAAAGTCCAGGTCTGGTTCTTCAGCCTTGCTCCTTCGC
GAAATGATCCTGTGTGGGTTAGTTCTCCTCTCTGGGTTGCTGTTTCCTCA

Sequence 1604

AGGGCGAATTGGAGCTCNCCGCGGTGGCGGGCCGAGGTACCACCTGAAGGCCCTCACACTC
AATTCACCATCTCCAATCTCCAGTATTCACCAGATATGGGCAAGGGCTCAGCTACATTC
AATCCACCGAGGGGGTCTTCAGCACCTGCTCAGACCTTGTTCAGAAGAGCAGCATG
GGCCCCCTTCTACTTGGGTTGCCAACTGATCTCCCTCAGGCCTGAGAAGGATGGGGCAGCC
ACTGGTGTGGACACCACCTGCACCTACCACCTGACCCTGTGGGCCCCGGGCTGGACATA
CAGCAGCTTTACTGGGAGCTGAGTCAGCTGACCCATGGGTGTACCCAACTGGGCTTCTA
TTGTCTTGACAGGGATAGCCTCTTCATCAATGGCTATGCACCCCAAAATTTATCAATCC
GGGGGCGAGGTACCTGCCCCGGGCGGGCCGCTTAAACTAGNGGGATCCCCCNGGCTTG
CAGGAATTTGATATTCAAGCTTATCGATACCCGTCNACCTTCGAGGGGGGGG

Sequence 1605

CCGGGCAGGTACCACNTGAAGACCCTCACACTCAACTTCACCATCTCCAATCTCCAGTAT

TABLE 1
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TCACCAGATATGGGCAAGGGCTCAGCTACATTCAACTCCACCGAGGGGGTCTTCAGCAC
CTGCTCAGACCCTTGTTCCAGAAGAGCAGCATGGGCCCCCTTCTACTTGGGTGCCAACTG
ATCTCCCTCAGGCCTGAGAAGGATGGGGCAGCCACTGGTGTGGACACCACCTGCACCTAC
CACCTGACCCTGTGGGCCCCGGGCTGGACATAACAACAGCTTTACTGGGAGCTGAGTCAG
CTGACCCATGGTGTCACCCAACTGGGCTTCTATGTCCTGGACAGGGATAGCCTCTTCATC
AATGGCTATGCACCCCAAGATTTATCAATCCGGGGGCGAGTACCT

Sequence 1606

CGGCCGCCCGGGCAGGAACNNNNNTTTTTGGGGGGGGGAAAACCNAGACGGAGCCNCGCN
CAANGGCCAGGCGGGAGTGNAAGGGCACCAGGGGGGGCNCACCACAAANACCGCCGCC
GGGNGAAAGCCACNCNCCGGCCNAGCCNCCGGAGNAACGGGGGGAACAGGGGCAGGCCA
TNTTTTTTTTTGNGGGGGGNGNANGGGGNGGANNCCAGGNAAAAANCANGCNGGCCA
GGGGGGGGGGAACNCCNGACCTNATGANGCACC CGCCNNGGNCNCCAAAANGCGGGGA
NNANAGGGGNGAGCCACCGNGCCNAGCNGACGG

Sequence 1607

CGAGTTACCAGAAGGAGAGATCACCACCATCGAGATCCACCGCACTAACCCGTACATCCA
GTTAGGAATCAGCATCGTTGGCGGCAATGAGACGCCACTGATCAACATCGTNATTCAGGA
AGTNTACCGGGATGGGGCCATCGCCAGAGATGGAAGGCTCCTTGCCGGAGACCAGATTCT
TNAGGTCAACAACTGTGATATCATGCAACGTGTCCCATAACTACGCCCGGGCTGNCCTTT
CCCAGCCCTGCAGNACCCTGCACCTGACAGNGCTTCGGGAGCGGCNGCTTNGGCAGTCGT
GCAA

Sequence 1608

CGAGCCTTTAGATGGCGTCTCCTCAGGGGGGCCAGATTGCGATCGCGATGAGGCTTNGGA
ACCAGCTCCAGTCAGTGTAAGATGGACCCGCTACGGAACGAGGAGGAGGTTTCAGAGTGA
AGATCAAAGACTTGAATGAACACATTTGTTTGCTGCCTATGCGCCGGCTACTTNGNGGAT
GCCACCACCATCACAGAGTGTCTTCATACTTTCTGCAAGAGTTGTATTGTGAAGTACCTN
CAAAGTAGCAAGTACTGCCCCATGTGCAACATTAAGATCCACGAGACACAGCCACTGCTC
AACCTNAACTGGACCGGGTCATGCNGGACATCGTGTATAAGCTGGTGCCTGGCTT

Sequence 1609

GCGTCCGACGTCCCCCAGGAGAATGGTAGACACAGATGAGGAAATTGTGGAGATGGGCAC
AAACCGCAAGGTGAAGAAAACGAACAAACACCGAGTTGATACGGATAGTCCCCGTTCCCC
TGAGGGCCGACCCCGTGAATCCCGATGAGCGTCCAGTTGCGCCGGGCATCCCTGGGCCTC
CCAGCGTCTTTCCCGGAGGTTTCATCGCCGACCGCGGAAAGCGCTCTCGGTTCCGCTTTC
CGGCCCCAGCCTCCCGGGCGCCCTCGCGCGGCGGCTAACGCTGGTCTCGGCCGGGCGCG
CTGACGTCATCGTGCATCAGAGTGAGCCCGGATGGGGCGGCGGGCTTCGGGAGCGCCCGG
GCTGATCCGAGCCGAGCGGGCCGTATCTNCTTGTGCGCGCCGCTGATTCGCGGCTCTGCG
GAGGCCTCTAGGCAGCCGCGCAGCTTNCGTGTTTGTGCGCCCGCACTGCGATTTACAAC
CCTGAAGAATCTTCTATCCCTAT

Sequence 1610

CGCGTCCGGCGGGCGGGCTGAGGAGGGCCCGGCTGCGAGAGCCTCAGTGGGAGCCGGC
TCAGCCCTCGGCCACCATGTGCGGCGCGCTCGGAGGAGGAGTACTGCGCGGCTGGTGA
TGGAGGCGCAGCCGAGTGCTGCGCGCCNAGGTGAAGCGGNTGTCCACGAGCTGGCCG
AGACCACNCGTGAGAAGATCCAGGCGGCCGAGTACGGGCTGGCGGTGCTCGAGGAGAAGC
ACCAGCTCAAGCTGCAGTTCGAGGAGCTCGAGGTGGACTATGAGGCTATCCGCAGCGAGA
TGGAGCANCTCAAGGAGGCCTTTGGACAAGCACACACAAACCACAAGAAGGTGG

Sequence 1611

CGCGTTCGAGTCTGGAGACGACGTTNCGAAATGGCACCTCGCAAAGGGGAACGGAAAAA
AGGAATGAACAGGTCATCAGCCTTGACCTCAGGTGGCTGAAGGAGAGAATGTATTTGGN
GTCTGCCACATCTTTGCATTCTTCAATGATACCTTTGTCATGTTANTGAACCTTCTGGC
NAGTGAGTACTTCAGAAAGGCATNAAACANGCCTCAAAGGGAC

Sequence 1612

CCCCGCGTCCGCCACGCGTCCGGGCTCGGCTGCACCGGGGGGATCGCGCCTGGCAGACC

TABLE 1
265/467

CCAGACCGAGCAGAGGGCGACCCAGCGCGCTCGGGAGAGGCTGCACCGCCGCGCCCCCGCC
TAGCCCTTCCGGATCCTGCGCGCANAAAAGTTTCATTTGCTGTATGCCATCCTCGAGAGC
TGTCTAGGTAAACCGTTCCGACTCTGTGTATATAACCTCGACAGTCTTGGCACCTAACGT
GCTGTGCGTAGCTGCTCCTTTGGTTGAATCCCAGGCCCTTGTGGGGCACAAGGTGGCA
GGATGTCTCAGTGGTACGAACCTCAGCAGCTTGACTCAAAATTCCTGGAGCAGGTTCCAC
AGCTTTATGATGACAGTTTTNCATGGAAATNNGACAGTACCTGGCACAGTGGTTAGAAA
AGC

Sequence 1613

GTTNAGTNGAAGTTCTCTACCATTGAATCAGTGAAGTAGAAAGATCTGATTTGGCCTGGG
ACCAAGTGTCAAGTTGGTTTGGTCTTTATTAATAATCACAATATCCGAAAACAAAAAA
CCTAGGAGATAAATGTAGAGGTATTGACTTTTCGTATCTTTATCTTCACACTGAAACAA
GAGCTATCCTATTTGATTATTAAGTGAGCTATGTGTTAAGTGCCAGGACATTTCTAGCT
TTTGTGAGAATGTGTCTACATATGAGTATAATAAACCCACATGTATACACAATTGTCTCT
TATGTACTCCTACCTGGCAGGAGTCTTTG

Sequence 1614

CGCGCCGGTGGTGCGATCTCGGCTACTGCAACTTCAGCCTCCTGGATTGAGGCAACACTC
CTGCCTCAGCCTCCACGTGGCTGGGATTACAGGTGCCTGCCCCATGGCTAATTTTTTG
TATTTTTGTAGAGATGGGGTTTCACCATGTTGGCTGGGCTGGTCTCACTCTCCTGACCT
CAAGCAATCTGCCTGTCTCAGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGCC
CCCAGCCTGAGCCTTTTTTTTTTTCTAATGCATCCAAGGTTAAGGGGAAGACGCAATAA
CAGGACTATTCTAAAAGGAAACCTGTTTGAAGTCTGTGAGATCAAGTCATCAGTCTCAGT
ATTNCACAGGCACACCTTAATTTTATTGGTAAAAGATATATATTTTTGNCTATTTTTGN
GCTTTTGGGGGCCTATTTTNGCTTTTTTACCTTTAATGNAAGAAGANCTTAATACCAAA
GTGGATTTTTTACCA

Sequence 1615

TCGCCNCGCGTCCGTAGAACTCACACTAGACACACGCGAGTAGTCATACGTCTTCACACG
GTTTAGGAGCTACTGGACCAACATTCTTGTTTTGCTTTTGTAAAAAATTCTAG
TCTGGAGCTAACTGTGGAGCAGCCAAATAGTAGCTGGCATGTTGATTCAAACCATGGGCT
GAATTTGCTCATAGGCTGTGCATCAGACAAAAGCTTGAATATTTGTGTTGTATGCTTGT
CCAACCACCGCTTGTGTGAGCATTTTTGTGGCTGTACAGAAAGTACACTTTTAAATTGT
CTCTTGCATCACTAAAATTTTTTAAATGAGCATAACAACGAAAGGCATCCAGCTGACT
TTTTGATTCCAAGATTATTGATTGGATTGACTTTTTTGCATTAAATTTTCCAGCAAAA
TAAATCATATGGCGAGTCAGGGAATAAAAAAGTCAAAAAGGAAACAAATAGAAGCTTTTT
TTTTTAAAAA

Sequence 1616

GGNCGAGCGCGCCTTGCGGGGGCGGTATCCCGGCGCCCTAAGACCCACGACCNCNNGCA
CCGGCCGNTGCTGCNAGACCCCGGCCGNGTCGGTCCGATGTCGCCCCCGGNCCCGCG
GAAACGCCTCCCTNCTGGCCAGGCTGTTTCNAGACCCGCTT

Sequence 1617

TCGCCACGCGTCCGTTNAGATGCAGAAATGAAAAAAACACCTTTGTTTTATAAATATC
AAAGTACATGCTTAAAGCCAAGTTTTATCTAGTTTATTCTAGTACTTAGCTTGCCTGGA
ATAGCTAATAAATTATTCATGTATGTGCTTTTGAAAAATCCAGAGCCCTATTTTACACAC
TTGTGTGAAGTTGGCAAACATTTTGAAAAATGGAAAAAGTTTCTAATAATTGGGAACAA
TTACATTAATTAATATTTTGTAAATATTGAAGCTTTTAGCCCTATGTCAATTTGTAGAT
TAAAAATAATTAATTATAGGAAAGGAAGATAACAGTGAGAAACCAACATTAC

Sequence 1618

CACGCGTCCGCCACGCGTCCGCGCGGGCGGGAGCGGGCGGNGCGAGCGGGAGGCGGCGG
CTCACAAGTGAAGCGCTGNGGCATGGNGCGCGCCTGCCTCCAGGCCGANNNGTACCTNAT
GTTGCGCTTCAACCTGCTNTTCTGGCTGGGAGGNNGTGTGNGGGCTGGNTGTCTGGCNTC
CTGGCTTGGG

Sequence 1619

TABLE 1

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TCGCCACGCGTCCGGACCTGGATGTGAGGGTGAANGGGCTGTGCTGCTGGGAGCCACATT
CCTCATTGACTACATGTTCTTTGAGAAGCGAGGAGGCAGCTGGGCCCTCTGCCATCACCA
GTTAGAGGCCACCATGGTGTGAGGAGACCATCACCTCGACCAGAACTCCAGATGGTCACC
TGCCCTGGCCCCCTCCTCTGGGCAGCCCCCTTCTCCATGTACACTGCAGGGGACAGAAGG
GGGGCCCCATCCCTACCCTACTCCCTGGCCGCTGCCCTGTGGTTCCCAAGGAAGGGGG
TATTGTATTGAGAGCCGCTCTCCTGCTACCTCCCACCACTGTCCAACAGTCCCTCGGCAC
ACAGGCATATTAAGCTTTTCACTTTTCCCATGCACTTTTTTCCACCCC

Sequence 1620

GGAGTCGACNCGCGTCCGGGGGCTTGTGCGGATCATGGCGGAGAATCACTGCGAGCTCC
TGTCGCGCGCCCGGGGCGGCATCGGGGCGGGGCTGGGGGGCGGCCTGTGCCGCCGCTGCA
GCGCTGGGCTCGGCGCCCTGGCCCAGCGCCCTGGCAGCGTGTCCAAGTGGGTCCGACTCA
ACGTCGGCGGCACCTACTTCTCACCCTCGGCAGACCCTGTGCCGGGACCCGAAATCCT
TCCTGTACCGCTTATGCCAGGCCGATCCCGACCTGGACTCAGACAAGGATGAAACAGGCG
CCTATTTAATCGACAGAGACCCACCTACTTTGGGCCTGTGCTGAACTACCTGAGACACG
GCAAGCTGGTGATTAACAAAGACCTCNCGGAGGAAGGG

Sequence 1621

GTCCGCCCGCGTCCGGGGCCCGCGGGCCTCGCCTCCGCCCTCCGCCACCTCGAGCTGCGG
TAGCAGCGACTCATGAGAGCGCGCCGGAGGACAGATTTGATAATGGGCTGCATTAAGG
TAAAGAAAACAAAAGTCCAGCCATTAAATACAGACCTGAAAATACTCCAGAGCCTGTGAG
TACAAAGTGAGCCATTATGGAGCAGAACCCACTACAGTGTCAACCATGTCCGTATCTTC
AGCAAAGGGAACAGCAGTTAATTTAGCAGTCTTTCCATGACACCATTTGGAGGATCCTC
AGGGGTAACGCCCTTTTGGGAGGTGCATCTTCTCATTTTCAGTGGTGCCAAAGTTCATATC
CTGCTGGTTTAAACAGGGNNGNGGTACTATATTTTGNNGCCTTATATGATTATGAAGCTAG
AACTCCAGAAAGACCTTTTCAATTAAGAAGGGTGAAAGATTTCAAATAATTAACAATACNG
AAGGAGATTGGTGG

Sequence 1622

TTCGGGAGTCGCCCCGCGTCCGCTTTTAAAAAGGCCAATATACCTATCACACTTTGGAA
GTAAAAATACACACTTTTCTGTGTACCTAAAAAAAATCGTTGAAAATCAAGGCCAAAG
GTAGTGCAATTTTTTCAATTAAGATTTAAAAAAAAGGGAATGATAGTCTTTGAAAGAAAC
AGTAGGCATCCAGCACTGGACAAAACATGGGTATCAAAGATGAATAATCTTTGGAGATTC
TGGCAGTGTTTTCCAGAACAAAGTCAAGTGGAAAGTGGAGAAATTATCTGTATAATTTTG
GACACATACAATGGCAGTTTATCAAAGGGTTTTGTTCTGTGGCCTGAATTTACTGGGGTC
CTACCTACACATTGAACATGTTTTGGCTGGCTTTTTTTTTTTTTTCAACTTGCCAGTTT
CACTTTACATGGTTAGTAATAAATGGTTTCCACGGGGTGAGTTGGGATAAAATTNTNAA
AACATNTTAAATTCCA

Sequence 1623

GGAGTCGACNCGCGTCCGAGCCGGGCGGGGCGATGTGGAGCGCGGGCCGCGCGGGGGC
TGCCTGGCCGGTGTCTGTTGGGGCTGCTGCTGGCGCTGTTAGTGCCGGGCGGTGGTGCCGC
CAAGACCGGTGCGGAGCTCGTGACCTGCGGGTCCGGTGTGAAGCTGCTCAATACGCACCA
CCGCGTGCGGCTGCACTCGCACGACATCAAATACGGATCCGGCAGCGGCCAGCAATCGGT
GACCGGCGTAGAGGCCGTCGGACGACGCCAATAGCTACTGGCGGATCCGCGGCGGCTCGG
AGGGCCGGGTGCCCGCGGGTCC

Sequence 1624

CGCGTCCGGGCGAGCCGCGCCCGCGGAGTTTTCCGCCCGGCGCTGACGGCTGCTGCGCCC
GCGGCTCCCCAGTGCCCCGAGTGCCCCGCGGGCCCCGCGAGCGGGAGTGGGACCCAGCCC
CTAGGCAGAACCCAGGCGCCGCGCCCGGGACGCCCGCGGAGAGGCACTCCCGCCACG
TCCCATTTCGCCCTCGCGTCCGGAGTCCCCGTGGCCAGATCTAACCATGAGCTACCTG
GCTATCCCCCGCCCCAGGTGGCTACCCACCAGCTGCACCAGGTGGGTGGTCCCTGGGGG
AGGTGCTGCCTACCCTCCTCGCCCAGCATGCCCCCATCGGGCTGGATTAACGTGGCCA
CCTATGCGGGGGCAAGTTCAACCAGGGACTATCTTCTCGGGAATGGCGGCCAACATTGTC
TGGGGACATTTGGAGGGAGCCAACATGCCCAAACCTGGACCCTGGGGCCCCTGGGGGCTG

TABLE 1

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Sequence 1625

CACGCGTCCGGCGCCGCTCCCGCATCTGCACCCGAGCCCGGGCGGCCTCCCGGCGGGAGC
GAGCAGATCCAGTCCGGCCCGCAGCGCAACTCGGTCCAGTCGGGGCGGCGGCTGCGGGCG
CAGAGCGGAGATGCAGCGGCTTGGGGCCACCCTGCTGTGCCTGCTGCTGGCGGCGGCGGT
CCCCACGGCCCCCGCGCCCGCTCCGACGGCGACCTCGGCTCCAGTCAAGCCCCGGCCCCGGC
TCTCAGCTACCCGAGGAGGAGGCCACCCTCAATGAAGATGTTCCGCGAGGTTGAGGAAC
TGATGGAGGACACGCAGCACAAATTGCGCGCGCGGTGGAAGAGATGGAGGCAGAAGAAGC
TGCTGCTAAAGCATCATCAAGAAGTGAACCTGGCAAACCTTAC

Sequence 1626

CCACGCGTCCGGCCGGGGGGTGGCCCCGGGACGTAGCGCCGCGGAGAGGAAGCGGCAAG
GGGACCATGCGGCGCCTGACTCGTCCGGCTGGTTCTGCCAGTCTTCGGGGTGCTCTGGATC
ACGGTGCTGCTGTTCTTCTGGGTAACCAAGAGGAAGTTGGAGGTGCCGACGGGACCTGA
AGTGACAGACCCCTAAGCCTTCGGACGCTGACTGGGACGACCTGTGGGACCAGTTTGATGA
GCGGCGGTATCTGAATGCCAAAAAGTGGCGCGTTGGTGACGACCCCTATAAAGCTGTATG
CTTTCAACCAGCGGGAGAGTGAGGCGGGATCTCCAGCAATCGGGCCATCCCGGACACTCG
CCATCTGGAGATGCACATGGCTTGGTGTATTGGACGGGACCTTCACCCACTT

Sequence 1627

GCCACGCGTCCGCCGCCCGCTTGCCCGTCCGGTCGCTAGCTCGCTCGGTGCGCGTCGTCCC
GCTCCATGGCGCTCTTCGTGCGGCTGCTGGCTCTCGCCCTGGCTCTGGCCCTGGGCCCCG
CCGCGACCCCTGGCGGGTCCCGCCAAGTCGCCCTACCAGCTGGTGCTGCAGCACAAAGCAGG
CTCCGGGGCCGCCAGCACGGCCCCAACGTGTGTGCTGTGCAGAAGGTTATTGGCACTAAT
AGGAAGTACTTCACCAACTGCAAGCAAGTGGTACCAAAGGAAAATCTGTGGCAAATCAAC
AGTCATCAGCTACGAGTGCTGTCTTGATATGAAAAGGTCCCTGGGAAGGANGGGGGCTT
GTCCAAGCAAGCCCTACCACTCTCAAACCTTTACGAGACCCTGGGNAGTCGNTTGGATCC
ACCACCACTCAAGCTGTACACCGACCGCACGGAGAAGCTGAGGCTGAATGGGGAGGGGCC

Sequence 1628

CCTAAGGGCAACAAGGGCGGTCTTGCCAGCGGGCTTTGAGGGAGAGCAGGGGACCAGA
GGTGACAGGGCCAGCTGGTCTGCTGGTCTCCAGGGCTGATAGGAGAACAAGGCATT
TCTGGACCTCGGGGAAGCGGAGGTGCCGCTGGTGCTCCTGGAGAACGAGGCAGAACCCGG
TCCACTGGGAAGAAAGGGTGAGCCCGGAGAGCCAGGACCAAAAGGAGGAATCGGCAACCG
GGGCCCTCGTGGGGAGACGGGAGATGACGGGAGAGACCGGAGTTGGCAGTGAAGGACGCA
GAGGCAAAAAAGGAGAAAGAGGATTCCCTGGATACCCAGGACCAAGGGTAACCCAGGTN
AACCTGGGCTAAATGGAACAACAGGGACCCAAAGGCATTNAGAGGCCCGAAGGGGA

Sequence 1629

AGTCGCCCCGCGTCCGCTGTGCCTGAAGGAGACTGGTTTTGTCCAGAATGTCGACCAAAG
CAACGTTCTAGAAGACTCTCCTCTAGACAGAGACCATCCTTGGAAGTGATGAAGATGTG
GAAGACAGTATGGGAGGTGAGGATGATGAAGTTGATGGCGATGAAGAAGAAGGTCAAAGT
GAGGAGGAAGAGTATGAGGTAGAACAAGATGAAGATGACTCTCAAGAAGAGGAAGAAGTC
AGCCTACCCAAACGAGGAAGACCACAAGTTAGATTGCCAGTTAAAACAAGAGGGAAACTT
AGCTCTTCTTTCTCAAGTCGTGGCCAACAACAAGGAACCTGGAAGATACCTTCAAGGAG
TCAGCAGAGCACACCCAAAACAACCTGTTTTCTTAAACTGGGTAGAAGCCTAAGAAAG
ATAAACTCTGCTCCTCCTACAGAAACAAAATCTT

Sequence 1630

TNCGGGCCTGGTGAGCACCGCCGAGGCGCGGGCCAGCTCTTCGAGGTTGTGCGCGGGAGT
GGCACGGCGGGCCGGGCCGAGCGAGGGGCTAACTTCAGCGGTGGCACCGGGATCGGTTGC
CTTGAGCCTGAAATCATGACCACCCAGGAAAAGAGAACTTTCGCCTGAAAAGTTACAAG
AACAAATCTCTGAATCCCGATGAGATGCGCAGGAGGAGGGAGGAAGAAGGACTGCAGTTA
CGAAAGCAGAAAAGAGAAGAGCAGTTATTCAAGCGGAGAAATGTTGCTACAGCAGAAGAA
GAAACAGAAGAAGAAGTTATGTCAGATGGAGGCTTTCATGAGGCTCAAGATTAATAACAT
GGGAGATGGCCAGGGTGGGTGTCATCACTTCTGACATGATTGAAATGATATTTCCAA

TABLE 1

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AGCCCAGAGCAACAAGCTTT CAGCAACACAAGAAATTCAGGAAGCTGCTTTCAAAAAGAA
CCTAA

Sequence 1631

CGGAGTCACCACGCGTCCGGGGCTGCCAAGGGAGGAGGAAGATGGCGGCGGGGGCGAGGT
GAGGTGTTGGCAGTGAAAGGGGTTCGGGCTCGGGGGGCGGGGGGACGCGGAGCGATGGC
CCGCGCCGCGCCGAGGGGCGGATAAAAAGCCGTGCGCGTGCGGGAGTGGGCGGGAGGGAG
AGGGGGTGTCCGAGGGCCACAAGAGTATGACGGGGCTGTACGAGCTGGTGTGGCGGGTGC
TGCACGCGCTGCTCTGTCTGCACCGCACGCTCACCTCCTGGCTCCGCGTTCGGTTCGGCA
CCTGGAAC TGGGATCTGGCGGCGCTGCTGCCGCGCCGCTCTGCGCGTCTAGCGCCGC
TCGGCTTACGCTCCGCAAGCCCCCGCAGTCGGCAGGAACCGCGTCAACCACGGGCACC
CGCGCGGGGGGGGTGCTGCCTGG

Sequence 1632

CGTCCGTTTGTTTAATATTTTTTTCTCTCTTGAACAAACTGAGATAATTTAGAAAACA
GGTGCTTAATTGCAATAAAATTACTATGAAGTATATTAATAATCACGACATTGTAAATC
TCACTTTAGATCATCAAAGAAAACCATTTGTTACTATCTCCTTTGAGCTTAGGAAAATGTA
CAAGAGAACAAATTAATAATTGAAAAATTGATTTCACTTAGAAAACTTCTAGGAACAGGG
TGAACCACTGATTTTAATTTGCCTAATTATCTTATGACAAGTATCAAATTAAGATGACAC
TTAAAGGATCCTTAGCATTTAACTTAATGATGGAGAAAGAGTGCTCAATAGGACAGTTCC
CCAGTTAAGGGGTAATGGAGATGCCCATTTTCAGGAGGACCATTCTAAGAAGATATTTT
GGATTCATTAATAAACATTTAAATAAAAAAGCCCTTCTTCAAGATTGGGAAC

Sequence 1633

CGCGTCCGCCGGCCTGGTGCACGCGGCGCACCGAGGCCTCCCGCAACGCCGCCGACAAGG
AGCGGGCGGCGGGCGGCGGCCGAGCAGCGAGGACGACGCGCAGAGCCGCCGCGACG
AGCAGGACGACGACGACAAGGGCGACTCCAAGGAAACGCGGCTGACCCTGATGGAGGAAG
TGCTCCTGCTGGGCCCTCAAGGACCGCGAGGGTTACACATCATTTTGAATGACTGTATAT
CATCTGGATTACCTGGCTGTATGTTAATTGAATTAGCATTGAGAGGAAGGTTACAACCTAG
AGGCTTGGAATGAGACGCTAAAAGCTATTAAACAAG

Sequence 1634

CCCCGCGTCCCGGTTGGCCGGGCGGAGGTCTTCGCTGAGGCCCGGGGCGGGGTGGCGCCA
CCCCTGATTGCGGTGCCACGGA CTGCTCCTGCTGGGCGGAGAGGACAGATTTGCAAAGC
GGAGGCTTGCGACGGGTCTGCAGGGGGACAGTGAGGAAAGGGCCCGCCTCGTNTCCGCT
CAGTGGGGACCCGCGAGAAATAAGAAATCAAATGACAACCTATTTGGAATTCAT
TCAACAAAAAATGAAGAACAGAAATGGGAGTCCCGATTAGT

Sequence 1635

CCACGCGTCCGGGCGGGGCCATCCAAGCAACGCTGAAGGCCCTTTTCCAGCAGCTGGGAGC
TCCCGGATTGCGTGGCACAGCTGAGGGGCCCTCTGTGATGGCTGAGCTCTCTTATGTCCTA
TACTCACATCAGACATGTGATCATAGTCCCAGAGACAGAGTTGAGGTCTCGAAGAAAAGA
TCCATGATCGGCTTTCTCCTGGGGCCCCTCCAATTGTTTACTGTTAGAAAAGTGGGAATGG
GGTCCCTAGCAGACTTGCCTGGAAGGAGCCTATTATAGAGGGTTGGTTTATGTTGGGGA
GAATTGGGCCTGAATTTCTCCACAGAAATAAGTTGCCATCCTCAGGTTGGCCCTTTCCCA
AGCACTGTAAGTGAGTGGGGTCAGGCCAAAGCCCCAAATGAGGGGTTGGTTTAGATTCTGA
CAGTTTGCCAGCCAGGCCCCACCTCAGCGTCTGTCTGAACAAACAAAGNTNGGGNGGGTTT
N

Sequence 1636

CCNCGCGTCCGCGGACGCGTGGGCGGACGCGTGGGCTTCTGCAGCAAGCTCAGGAGAGCT
GCTGTCTTCCCTCCCGCCACAGCAACGCACCCTCTGACCCTGCCACAACACTACTGCAA
GGCAGACGCTGCCTCCTCACTCACTGTGGATGTGACGCCCCCCACTGCCAAGGCCCCCCAC
CACC GTTGAGGACAGAGTCGGCGACTCCACCCAGTCAGCGAGAAGCCTGTTTCTGCGGC
TGTGGATGCCAATGCTTCTGAGTCACCTTAAC TTTGAACCATTCTTTGGAATTGGCGTGG
TATATTTAACCACGGGAGGCGTGTCTGGAAACGCAAACATCATTAAATTCATACTAGGT
TTGTACCGTATCTGTAGGCATTCTGTAAATAATTCCAAGGGGGAAAAC TAAACNNGGGAC

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GTGGGGTTGTATCCTGCCAGGTTTGAGTGGGGGCTCACACCTAGGGTGAGAAGTCAGAAA
GCGCTTGATTTTAAACAACCAAAAAGAATTGAAAGGGTG

Sequence 1637

CGTCCNATAGGCTTGCACACTTTTCTAACTACATGTTTAAGTGGCAGAGTCCAGGCTGTC
GAGTCACGGTTGGGTTTGAATCTGACTCCACCAGTAACTTTGGTTGGAAAAATCACTTA
TCCTCTTTAAGCTTGATTTTATTTATTTTATTTTATGTAAGAGTGAGACAGTAGTAGCTT
AATAGGGTTGCTTTTAAATTAGAGTGAACATGAGGCATTTATTCGGTGCCAGACAGATAA
CTGCCTATAACAGGATGTGATCAGCACAAAGTAACAGAAAATTAGCCTGGACGGTGGCTTA
AGCAATGGGGAATGTTTATCTCACATAGCAAAAAGGTCTGTAAATAGGATGGTTTTAGAG
TTGGGGTGGGGAAGCCAAAAATGTCATCAGGATTTCTTGGAACCCGT

Sequence 1638

CGCGTCCGGATTAATACAACCTCTTAAAAATATAGTCAATAGGTTACTAAGATATTGCTT
AGCGTTAAGTTTTTAACCGTAATTTTAAAGCTTAAGATTTTAAGAGAAAATATGAAGAC
TTAGAAGAGTAGCATGAGGAAGGGGAAGAAAAGAAGGGGAAGAAGATCAAAGAAGGAAAG
AAGAAGGGGAAGAAAAGAAGGGGAAGAAGATCAAACCCACCATGCCCCAGGCTCAGCAG
GGAGCTGCTGGATGAGAAAGGGCCTGAAGTCTTGCAAGACTCACTGGATAGAAGTTATTC
AACTCCTTCAGGTTGTCTTGAAGTGAAGTCACTCATGCCAGCCCTACAGAAGTGCCTTTA
CGTATTGGAGCAACAGCCGTGTTGGCTTGGCTGTTGACATGGATGAAATTG

Sequence 1639

CGCGTCCGGCTCCCCGCACCCCTCGCACTCNCTCTGGCCGGNCCAGGGCGGCCTTCAGC
CCAACCTTGCCCAGCCCCACGGGCGCCACGGAACCCGCTNGATCTCGCCGCCAACTGGTA
GACA

Sequence 1640

GTCGCCACGCTCCGGCGGCCGGGGCCGGGGCAGCCGGGAAGCGGGTGGGGTGGTGTGTTA
CCCAGTAGCTNCTGGGACATCGNTCGGGTACGCTCCACGCCGTCNCAGCCACTGCTGTGG
TCGCCGGTC

Sequence 1641

CGTCCGCTCCTCCCGCTGAGGCGAGTCTGGGCTCAGCCTAGAGCTCTCCGGCGGCGGGC
CAGCTTCAGGGCAGCGCGGGCTGCAGCGGCGGCGGGCTTAGGGCTGTGTAGGGCGAGGC
CTCCCCCTTCTCCTCGCCATCCTACTCCTCCTCCTCGTCATCCTCCCCCTTCGTCTCTC
CTCGCCTTCTCCTCCTCGTCAGGCTCGACCCAGCTGTGAGCGGCAAAGATGGGCGGCGC
CCAGGCCGCCGCTGCCAGGCTGTGCGGGCGTCATGGTGCCGGCGCCCATCAAGACCTG
GAGGCCCTGCGCGCGCTCACGGCGCTCTTCAAAGGAGCAGCGGAACCGAGAAACAGCACC
CAGGACTATCTTCAAAGGAGTTCTGGATATCCTAAAGAAATCTTCTATGCTGTTGAGC
TTGCCTGCANGAGATCCATCCCAAGTGGAACCT

Sequence 1642

ACATTTATCATGGATGCTGACCGGGAGAAAGAAAGAAAGAAACGGGAGGAGCGGGAGCGT
AAGCGGCGGAAGGAGGAGGAGGTGCAACAGCCAAAGTTGGCAGAGGAGAGACGGCGGCAG
AATTTACAGGAGGAAAAGGAAAGGAAGTTGGAATGCCTGCCCCCTGAACCTTCCCCTGAT
GACCCTGAAAGTGTCAAGATCATCTTCAAATTACCTAATGATTCTCGAGTAGAGAGACGA
TTCCACTTTTACAGTCTCTAACAGTAATCCACGACTTCTTATTCTCCTTGAAGGAAAGC
CCAGAAAAGTTTCAAGATTGAAGCCAATTTTCCAGGCGAGTGTGCCCTGCATCCCTTC
AGAGGAGTGGCCCAATCCCCCTACGCTACAGGAGGCGGACTTAGCCACCAGAAGNTCTT
TTTGTTCAGGACCTAACTGACGAATGACATTTTTTTCTTTCTGTCCCCCTCCTACCCAGT
CCCTAAAAGAAATGGGGNAAAAAGGAAACAACAGCAGTCNTAAAAA

Sequence 1643

CGCGTCCGGAGGGGCTAAGAAGGTTGTCCTTGCTAATGCTCTGATCTGTAAGTGAATAG
GGCAGAACAGTTCAGCCTTGAGGTTAGAATTTAGCAGGAGCTATCCTGACTTAATATCCA
GTTGTGGGGTTTGCAAAACAAAACAGCTGTATGTAATCATTGCCACTAGTTCATCTAGA
ACTCCTTTCTAGTTTGTATTTTTAAATGTTTATACATAAAACCACCAAAATACATAGC
TTCGACAAGATGGAAGTTTATTTCTCTCTCCATAACAGTGCAGTGATAGTCAGCTGGTC

TABLE 1
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CAGGCCAGGCAAGGGGCTGGTCCATGATGTCATCAGGCACCCAGGTTCTACTGGCTTTG
CATGTGGCCACAGTTAGCAACAAANGGAGGCTGTAAATTT

Sequence 1644

CGCCACGCGTCCGGTGATGCGGACCCCGGGCGGGCGCAGGGCGCGGGGCTCCGGCGCCCGC
GCTGCGTCTCCCCGGCCGCGGGCGAGCCGCTGCAGAGGGAGCGTCGCGCCGGGGCGGAG
TGCGGGCTTGCGCGGCAAGTGCGCGCCGAGGTCACGAAATGGATTGGAGTGAACCGGAGA
CCCCGAAACGGAAGCGCAGGGAGAAGGAAGAGGTGTTTGAAAAGCTTCTTCAGACCAG
CTGGTCTTGCTTCTGGAGCATCTCTTGAGCAGAAGACTCTGAGCCCCGAACCTCTGCAA
AGCCTCCAGAGGACATACCACCTCCAGGATCAGGATGCAAGAGGTTGCCATCGGTGGTG
TGAACCTCATTGTTAAGCACAAGTTCACGAAAGCCTACAAAAGTGTGGAGAGGTTCCCTCA
GGGAGGATCAGGCCATGGGGTGTGTACCTCTACGGGGAGCTGATGGTTGAGTGAGGACCC
CAGAC

Sequence 1645

TCGCCACGCGTCCGGGACATCGAGTNCGGGCTGGCTACGAACTCCTCGGGGGCGAAGGTG
GCGGAGAGGGATGGGTTCCAGGACGTCTGCGGCCCGGGGAAGGCTCGGCGGACGGATT
TGCGGTGCGCAGCCAGTGCCGTTCTGCTCCCTCAGGTGCTTGGCGTGATGATCGGGGCCGGA
GTGGCGGTGGTGGTCACGGCCGTGCTCATCCTCCTGGTGGTGCGGAGGCTGCGAGTGCCA
AAAACCCCAGCCCCGGATGGCCCCCGGTATCGGTTCCGGAAGAGGGACAAAGTGCTCTTC
TATGGCCGGAAGATTATGCGGAAGGTGTCAATCCACCTCCTCCTCGTGATACCTCT
GTCTCCGCCACCTCCCGGCCACGCATGAGGAAGAACTGAAGATGCTCAACATTGCCAAG
AAGATCCTGCGCATCCAGAAAGAGACGCCACGCTGCAGCGGAAGGAGCCCCCGCCGCA
GTGCTAGGAAGCTGAC

Sequence 1646

TCCGCCAAGTCTGCGATGATGGACTCAACACCTTCCGCGACGAGGGGCGGGTTCTGCG
GCGCCTGCCAAACCGCATACCCAGCCTGCGGATGCTCCGGAGCTTCTTACCCGACGGGTC
CTTGATAGCTGGGGCACCTCTGAAGATGCTGACGCTCCTTCTAAGCGACACTCAACCTC
TGACCTCTCAGATGCGACCTTCAGCGATATCAGGAGAGAAGGCTGGTTGTATTATAAGCA
GATTCTCACCAAGAAGGGGAAGGCTGAGGACCGGGATGACATGCTGGGCTGGATCAGAGC
GATCCGGGAGAACAGCAGGGCCGAGGGCGAGGACCCCGGCTGTGCCAACCAAGCTCTGAT
CAGCAAGAAGCTTAATGATTATCGCAAAGTGAGCCATAGCTCTGGGCCCAAAGCTGATTC
CTCCCCCAAAGGCTCTCGCGGCCTGGGGGGCCTCAAGTCTGAGTTCCTCAAGCAGAGTGC
GGCCACGTGGCCTCANGACTCAAGACCTGCCCGCAGGGAGCAAGGATGACAGTGCTGCAG
CCCCAAAACCCC

Sequence 1647

GGTGTGCCCCCGCGTCCGGTTTCTTCTAATTTATATTTCCGATACATANGTGTAGAACA
GGAATTTGCAGAAGCCATTTAAGTTATCTTTGAGGTAANGCTCTGATTTAGCATTTATT
CTGATAAAATCTAATACATCATGGGATATATATAAAGCAACTTAATTCTTGTGGTGTAGT
CTTAATAGTTTTGAATGTTGACTGAATGTCTATAAAATTGTGAGTTTGTCTTTGTTACAT
TCCAGTGTTTCTGCCTCTTGGCATGCTTAAAGCACGGCTTACTTCATCTGCTCCTTACAC
ACTAAAATGCTGTAGTGTGCTCAACTACAGAAATAGCCGCTGCTAAGTTGATGTAGATT
TTCTACTTGAATATTTTATGGTTGTAGGAACCTCAGGAGGGTCAGTGTTTACTGGTTTA
TATATGCCTTCTTTTCTGTTTGAGCTTCTCTTTGAAGGGATTCTAACAGAACAAAA
GCTGCTGATCACCTAAGTTGGAACAGNAAAGNGTAATTAATACTTAATGC

Sequence 1648

TCACCACGCGTCCGAAAGTCCGTGACATGGTTCCCCGTGGTGGCCCGTGGCAGCCCGTGG
CATGGCGTGGCTCAGCTGTCTGTTGAAGTTGTTGCAAGGAAAAGAGGAAACATCTCGGGC
CTAGTTCAAACCTTTGCCTCAAAGCCATCCCCACCAGACTGCTTAGCGTCTGAGATCCG
CGTGAAAAGTCTCTGCCCACGAGAGCAGGGAGTTGGGGCCACGCAGAAATGGCCTCAAG
GGGACTCTGCTCCACGTGGGGCCAGGCGTGTGACTGACGCTGTCCGACGAAGGCGGCCAC
GGACGGACGCCAGCACACCGAAGTCACGTGCCAAGTGCCTTTGATTGTTCTTCTTTCT
AAAGACGACAGTCTTTGTTGTTAGCACTGAATTAATTGAAAATGTCAACCAGATTCTAGAA

TABLE 1
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ACTGCGGTATTCCAGTTCCTTCTGACACCGGATGGGTGCTTGGGAACCGTTTGAGCCTTAT
AGATCATTTACATTCAATTT

Sequence 1649

CNCCACGCGTCCGGGGATCCCTGGGGAGAGTAACAGTGGCCCCACATCCCTCCTCCTGGG
AGACGCTGGTGCAGGGCCTCAGTGGCTTGACTCTCAGCCTAGGCACCAACCAGCCCGGGC
CTCTGCCTGAAGCGGCACTCCAGCCACAGGAGACAGAGGAGAAGCGCCAGCGAGAGAGGC
AGCAGGAGAGCAAAATAATGTTTCAGAGGCTGCTCAAGCAGTGGTTAGAGGAAAAGTGA
ACGTGCACCCCATGGGATGGAGACCCGAAGGGACTCAGACGGAGCCGCGTGTGGCAG
CGCCTGGGTGTGGGCCCATTGTTGGGACCAACAGCAAGCTGTGGTGGATGAGTGCCAG
GACCTGTGTACCGGGACACGTGGGGAGTCCTCCAGCATGATGCTTGACTGACCCGAGGA
AGGTCTCATGTTTCGTGCCTGTCTTCGGATGGCTGTGAGGCATTCCTTGCAAGGG
ATGCTTGCGTACCAAGCGGTCTACCGCATCTACATGGCTTCTGTGATGCATGTTGTCG
TTCCACCCNGGAT

Sequence 1650

CGCGTCCGAGCTTTCAGGGAAGAACAGAGTATGGGTCTCAGCCCCCTCATGCCTCGG
AAGGCTACTACGCCTCATGATGAGCCTGCTGAAGGACGATGTGTACTGTGAGCTGGCGG
AGAGGCACATCCAACAGATTGTGCTCTCCACCAGGCAGGTGAGGAAGGAGGCAAGGTGA
GAAGGATCACCAGCGAGGGCCAGATCCTGGAGCAGCCCCCTGGACCCTAGCCTCATCCCTA
AGCTGATGAGCTTCCTGAAGCTGGAGAAGGGCAAGTTTGGCATGGTGTCTGAAGAAGA
CGCTGCAGGTGGAGGAGCGCTATCCATATCCGTTAGGCTGGAAGCCATGTACCGAGGTC
ATNGACCAAGGCCCCATCCGTAGGATCGAGAAGATCAGGCAGAAGGGCTTTGTCCAGAAA
ATGTAAGGCCTCTTGGTGTAGAGGGCCANNGTGTTGNCTGAGGGGGAATTGACCCGTT
GGAAGGGGGAAGCAATGAAAGGGCCAAAG

Sequence 1651

CGCGTCCGGGATGCCCTTGGGTCTGAAAGTCGATGAAGGACGCGATTACCTGCGATAAGCT
TCGTGGAGTTGGAAATAAACTATGATACGGAGATTTCCGAATGGGGTAACCTAACTGAGC
AAACCTCAGTTGCATTTTGATGAATCCATAGTCAAATTAGCGAGACACGTTGCCAATTGA
AACATCTTAGTAGCAACAGGAAAAGAAAATAAATAATGATTTGTCAGTAGTGGCGAGCG
AAAGCGAAAGAGCCCCAAACCTGTAAAAAGGGGTTGTAGGACATNTTACATTGAGTTACAA
AATTTTATGATAGTAGAAGAAGTTGGAAGCTTCAACATAGAAGGTGATATTCCTGTATA
CCGAAATCATAAAATCTCATAGATGTATCCTGAGTAGGGCGGG

Sequence 1652

GTCGCCNCGCGTCCGCAACATTATTGAGATTGTCGTGTATAGTCATCGAATATCAGCCAG
TTCCTGTAATTTTGTGACACGCTCTTGCCAAGCCCACCAAGTATTTCTTTATAGCTAA
AAGTTCCATAGTACTAAGGAAATAAAGCAATAAAGACAGTCTCAGCAGCCAGGATTCTGG
CTGAAGGAAATGATCCGCCACCCTGAGGGTGGTGTGTTAGTTTCTACCCATACCTCAGC
CTCAGGCGAGTGGCTTATAGCCTCCATTATGGTGCATTTATTTATGGTACTAAGATAA
AGACTGTCAATCCATTGATTTATCTCCTCCTGTCCCCCATCTAAATACCCATGCTGCTT
TTCTGGAGTGTTGTGGGGGGGTTACCAGCTTGATCCACTGGTGCTCTTTAAGAAGGCCCA
AGAAAGGTCTTTGGGGCATTGCCAAAGAAAATCCCGGATTTATGTGGGAAAACCTCACT
TTTCTCTTTACNGGCTGGTACCAAGA

Sequence 1653

CCGTCCGTTTTTTTTTGAACCTACCGTAAAATTTTTTTTTAAAAAGTGCTTGTAATAA
TAAAGAGGAATAAAGGGGGGTGAACAGCCAGTACGATAGTGCATGCCTGAAATTCCAGT
GCTTTGGGAGGCCGAGGCAGGAGGATCGTTTGAGGCCAGTAGTTGGAGAGCAGTGTTGGG
AACCTGGAAGACCCCATCTCTACAAAAATTTAAAAAGTTAGCCGGGCATGGTGATTAC
ACCTGGAGTTCCAGCTGCTGTGGAGGCTGAGGTGGGAGGATCGCTTGAGCCCAGGAATTT
GAGGCTGCAGTGAGCCATGATTGCACCACCGCACTTCAGCCTAGGTGACAGAGCAAGGGT
CTACCTCAGAAAAAAGAGGAGGAGCAAGCACGTGTTGATGGGTGGAAATCCAGCC
AGAAATGCTGAGGCTGAAAAGATTGTTCCAGTTTCTGTTAGCCAGGGGAAAAGGGGAA
ATT

TABLE 1

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Sequence 1654

CGCGTCCGCTGACATTTCTAGGAAGCTNGGAAAAGGAAAGTGAAGGAATGGTCTAAAGA
AATGACCATTACACTGATTTTGTCTGGACAGTCTGGCCGCAGGTTATTCATAGATTATT
CAGCCTTTGCAGGACTTGGATTGAGGGTTTTACTCAGTCCCTTTACCTTAGGTGGAATCT
TCTTAAATTGAAATTTTTGGTAAGGAATTCATTTACAGGTAGTGTTTCAGACTCTGAAA
GCCCTGACTTGGTTCTTGGCTTCTACTGTACTAGTTACTAGTTACTGGTACTGTTGCCAA
GCAATCTGCTTGAATTTGTGGATCCCTGCTGTTCCCTAATCCCACCCCTGCCCTGAGA
CAGTGAATGTAGTCCGTGAAGGGAGTGCCTCTCTGGGACCCCTGTGTTGTTACAGGCTG
TGCAGTGCAACAATCCAGCAAAAATACCCTATCCCCGCACTTAGTCATTCTGGTAACT
AACAATTTTGAAATACTCATATAAAATGAACAGGAAAGTGGTTAGTG

Sequence 1655

GACCAACGCTCCGGACCCAGACCCGGCTGACCCACCTACCCGCGATCCTGCCCATGGCTG
ACGGGCTCTTTTCGGCGCAGACCCTGGGGTCTCGAGCAGATTGCCCCGACCCCGAGTCCG
AAGGCCTGTTTGACAAGCCTCCCCCGGAAGACCCTCCCGCTGCCCGCGGGCCAGGTCGG
CGTCGGCCGCGGGCAAGAAGGCTGGTCGGCGCGCGGGCGGGAGGGCGCAGGGGGGCCGCG
CCGGGCAGCCCCCGAAGGCCGCATCGCGCCCCCGCCCAAGAAGGAGGCGCCTCCACTGG
ACGAGGGCTGCTATCTCGACCATTTTCCGCACCTCTCCATCTTCATCTACGCAGCCATCG
CCTTCTCCATCACCTCCTGCATCTTTACCTATATCCATTTACAGCTTGCCTGAGTGGCCA
GCGCGGGACGGGGTGGGCGCAGGACCGAGCGGGGAGGGAAAGGGGAAAACGGGGGCTNGG
CATTTTGTGTTTTAG

Sequence 1656

CNCTAACCCCGAACTCTAGATCGTCTTGCTTGTTTGTCTGAAGAAGGGAATGAAATAGAA
AGTGGAATAATAATTTTCAGAGCATCTTCCCTTAAGTAAGCTACAGCAAGGCATAAAA
TCTGGTACATACCTTCAAGGAACATTTAGAGCTAGCAGGGAAAATTAAGGAAAGCTACA
GTATGGATTATGGCGACAGTGAAGAAAATAAAGAGATAATCTTACAGGGACTTAAACAT
TTAAACAGAGCTGTTTACGAAGATATTGTGGCTGTGGAGCTTCTCCCCAAGAGTCAGTGG
GTAGCACCATCTTCTGTGGTTTTACATGATGAAGGTCAAAATGAAGAAGATGTGGAGAAA
GAAGAAGAGACAGAACGAATGCTTAAGACTGCTGAAGCGAGAAAATGTTGAAGCCTACA
GGTAGGAGTTGTAGGAATAATAAAAAGGAATTGGA

Sequence 1657

CGTCCGCGGACGCGTGGGCGGACGCGTGGGCTGGCTGTATCTATACTTTCCTTGAGAAAA
ATCCCATAAAGTGGATGGACCTGTGAAGAAAATGTATGCTTATGGCCTAGCCTTCATGTC
TGGCTGATGTATCCTATAAGGCAGTAAGCCCCCTTTCTAGTCTCTGGTAAGATGCAAGAG
CTCATATCCCCATCACTGACATTTTAGTTTGGAAATAATATTGAGACTGTGCTATGACCA
ACCCCTGATGTTGTTTTTCTTTCAAACCTTTGCATATGAGTAGAGGAAAAGCCTAAAA
GTTAAGTATTTATGTCTGGGGGGATACCTTCAGGTGTCTTATCTGTTTTATGCAAGAATT
TATGTGTTTCATCTTTATTCAGTGCAAAGATTTTTTTTTAAATTTTGTATAATTGGAGG
TAACATTAAGACAACCTTNTCCACAAGAAAACCTCTAAAATTAATATTCCTTAAGATT
TGGTTTTCTTTGCCTTATAATATTACCTTTTAATTGCATGCAAGATTGTCATACTTTTC
AAAAG

Sequence 1658

GTGCCCCGCGTCCGTTTGATATACCACTCTGATAACTCATATAAAAATATCATCATAAA
AAGCTTAATTTTCATCCCTTTTATGTTGGTTTTAAAGGTAATGCTTACCATATTTTATA
ATTGAGAAGCTTACATAGTAGAATCCATTCTATAATACATGTGTTGACAAAGCTTTAGA
GAAAGTTTCTATTCTCTCCATTTCCCTGCCCAAAGTGTGACATAGGCAGTGATGAA
GAATCTTTACCAAGATTTTCAGGGGTACCTATGAAATTGCTTTAAATGCACTGCTGGTG
TAAATAATTAGCAAGCAAAAGCGTTTTCTGTGACTTCAGGTACCAGCTTAAAGAGCACTAG
GGATGGGGAACGAATGCCAATCAGACTCCACCTAGAGCACCAGGAAACAGCTTGTCCCT
GGTAGGGAAATGGTGTGCTGAAAG

Sequence 1659

CGACCNCGCGTCCGGCTGNTGACCCCATGCTGAGTGGCCNGTGGGGAGCGGCGCCCGGCA

TABLE 1
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GGCTCTTCTGGGGTCGTCTGTCCTATCCGTGGATTGTATATACTCTTCTCTGTTAAGGAG
TTTTTCCCAAGAAGAAAAGTATTTAAAGAAATACCAAGTGAGTGCCTTAAAGTTGGAGAA
GTAAGTGGCCATGCCAGAAATAAGGATGCCAGTGCCAGAGCAGTGAGATTAGTCTGT
GTCCACAAGCAGAGGCCCTCGATGGGAGGGAGTGGCAGGCAGGAGAAGGTGGCGCTGC
CAGGTGCCCGGGTCTATTGGAGGCGCCCATCTCAGACTTCCTAACACAGCCTGTGTGGA
AGGCAGAACAAAGAATGCATGCCAGTCAGAAATCTGTTCTATTCTGCTCCAGGAAAATC
GGAAACCTGTGAGTCANAGTCAGAGAACTTACCCAGCCACGTATTCCTGTTTCATGGGT
NCTGTAGATGTTTTGAGTCAAGGAAGGTA

Sequence 1660

TCGACCNCGCGTCCGGTGGGTCCCTGCCGGCCGGCGGGCGGCAGACAGCGGCGGGCGG
AGGACGTGCACTATGGCTCGGGGCTCGCTGCGCCGGTTGCTGCGGCTCCTCGTGCTGGG
CTCTGGCTGGCGTTGCTGCGCTCCGTGCCGGGGAGCAAGCGCCAGGCACCGCCCCCTGC
TCCCGCGGCAGCTCCTGGAGCGCGGACCTGGACAAGTGCATGGACTGCGCGTCTTGACGG
GCGCGACCGCACAGCGACTTCTGCTGGGCTGAGCTGCAGCACCTCCTGCCCTTCCGG
CTGCTTTGGCCCATCCTTGGGGGCGCTCTGAGCCTGACCTTCGTGCTGGGGCTGCTTCT
GGCTTTTTGGTCTGGAGACGATGCCGCAGGAGAGAAGAAGTTCACCACCCCCATAGAGGA
GACCGGCGGANAGGGCTGC

Sequence 1661

GGTGTGACCCNCGCGTCCGGCGCCCCGCTCGCATTGTTCCGGGCGACTCTCGGAGCGCGCA
CAGTCGGCTCGCAGCGCGGCACTACAGCGGCCCGGCCCGCCCCGCGCCCCGCGGCG
CAGGCAGTTCAGATTAAGAAGCTAATTGATCAAGAAATCAAGTCTCAGGAGGAGAAGGA
GCAAGAAAAGGAGAAAAGGGTCAACCACCTGAAAGAGGAGCTGACCAAGCTGAAGTCTTT
TGCTTTGATGGTGGTGGATGAACAGCAAAGGCTGACGGCACAGCTCACCTTCAAAGACA
GAAAATCCAAGAGCTGACCACAAATGCAAAGGAAACACATACCAAAGTAGCCCTTGCTGA
AGCCAGAGTTCAGGAGGAAGAGCAGAAGGCAACCAGACTAGAGAAGGAACTGNNAACGCA
GACCACAAAAGTTTACCAAGACCAAGACACAATTATGGCGAA

Sequence 1662

GACCACGCGTCCGGAAGGAAGGGACGGGCTGAGTTCCCCGACGAGAGACACACCCAGATT
TTCCTGCAGCTTGGGAGAGGTCTCCAGGAGCCTTGGTCCCTCCTGGCCTGCCGGAGT
CCTTAGCCAGGATGGAGGCTGTTGTGAACCTGTACCAAGAGGTGATGAAGCACGCAGATC
CCCGGATCCAGGGCTACCCTCTGATGGGGTCCCCCTTGCTAATGACCTCCATTCTNCTGA
CCTACGTGTACTTCGTTCTCTCACTTGGGCCTCGNATCATGGCTAATCGGAAGCCCTT

Sequence 1663

GTCGACCACGCGTCCGGGCTCCATCCGGGCTATCCTGCCGCCTTAGCGGCTGCTTCTCCC
CAGGATGCGGGCAGGGGGCCTCTCTCCCACTCCCCACACACCGATTTCTGAGTAGCGATA
GGGGCTGGAGGCTTATTTATGGGGTAGGGGGCGCTGGTAGGCGAAGATTGTCCGAGGG
AGAGGGGGAGGATGAAGCCAGTGCGTGGCGGAGACTTGCCAGATGTTGATGCCTAAGAAG
AACCGGATTGCCATTTATGAACCTCTTTTAAAGGAGGGAGTCATGGTGGCCAAGAAGGAT
GTCCACATGCCTAAGCACCCGGAGCTGGCAGACAAGAATGTGCCAACCTTCATGTCATG
AAGGCCATGCAGTCTCTCAAGTCCCAGGGCTACGTGAAGGAACAGTTTGCCTGGAGACAT
TTCTACTGGTACCTTACCAATGAGGGTATCCAGTATCTCCGTGATTACCTTCATCTG

Sequence 1664

CCGCGTCCGGGGGTTGGTACCCGAGCGCCTTCCCCTCACCTCAACCAGAGAAGAGCATCC
GGTTGCTTTTTAAAGCTTTTAGCCTGCCCTAGCAAGGACAAAGCATGTTAGATTAGAGAT
GCTTCTGCTGATCGCAGGGGTTCTTATTTGAAAACATCTATGATGGGGGTGGGGTGGGAG
GAGACAGGTTGTGGTTATGCAGGAAAATCTTGTCTAAAAATATATGAGTTTGGGGGTAA
GGGGTGGGATGCCAAGCAAAATCAGTAATTATTTTAAATGAACATATGTATTTTATT
AACTTTTAGTTAAATACAGATTTTACAACGAGGTCAGCATAAGCCTAAATCTATATAGAG
GGCTAACTCAGGCATTGTCTTGTATTGTAGACTGGATTAAAAACAACCTGTCCTGTT
TTGTNAGTTCCAGCTTCTTTCGTTTGAATAAATTAGACCAAAAGAA

Sequence 1665

TABLE 1
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CGGTNCGCTTAATGTCAATGTGGCCTGGGCTGGAGGTCTGGACCCCCCATGGGGGATCC
TGAGTACCTGGCTGCTTTCAGGATAGTCGTGATGCCCATCGCCGAGAGTTCTCTCCAGA
CCTAGTCCTGGTGTCTGCTGGATTTGATGCTGCTGAGGGTCACCCGGCCCCACTGGGTGG
CTACCATGTTTCTGCCAAATGTTTTGGATACATGACGCAGCAACTGATGAACCTGGCAGG
AGGCGCAGTGGTGTCTGGCCTTGGAGGGTGGCCATGACCTCACAGCCATCTGTGACGCCTC
TGAGGCCTGTGTGGCTGCTCTTCTGGGTAACAGGGTGGATCCCTTTTCTAGAAGAAGGCTG
GAAACAGAAACCCAACTCAATGCCATCCGCTCTCTGGAGGCCGTGATCCGGGTGCACAG
TAAGTGTGGAGATGGGACACTCGCTGAGCTCAGACTGAAGGATCTTGGT

Sequence 1666

CGACCNCGCGTCCGGTGTGATGATCGCTACTGCTGGAGACCGCACAGAGGAGTTCCACGG
CCACNGCAGTGAACCTCCTGGGGAACCTGCCCTCAAGTGTCTGGATGTTCTCCTCACCC
TGGAGCCACATGGAGACTCCACGGAGTTCATGGGAGTGAATATGGATGTGATTGCTGCC
TCCTCATCTTCTAGAGAAGCGTTTGCACAAGACACACAGGCTGAAGGAGAGTGTAGCTC
CCGTGCTGAGCGTGTGACTGAATGTGCCCGGATGCACCGCCAGCCAGGAAGTTCCTGA
AGGCCCAGGTGCTGCCCCCTCTGCGGGATGTGAGGACACGGCCTGAGGTTGGGGGAGATG
CTGCGGAACAAGCTTGTCCGCCTCATGACACACCTGGACACAAGATGTGAAGAGGGTGGC
TGCCGAGTCTTGTTTG

Sequence 1667

NCGCGTCCGACACTATTTAGAGAGCTCCCTTCCACCTCTCTGCCAGCCTTGTTACCTC
ACTTCTGCTCTGGCCATGGCTGTGAAGGGCCAGCCAGCTCCCTGTTTTGATGTTCTGTG
CAACAGCTCCGGGGTCTTGTGACTGGAGATCCTCAACAGGCCCTGGAGCCAGGACTGGAG
TCTTGGCAGCTGATGAGCAGCACCTTGCCGGCCAGGAGGAGCTGATGCTGACGATCTCC
CAACATCTGAAGGCTTAAAGAACATTGTCGTTCTTCAGCCCTCCTTGCTTCTCTCAATAC
AATAAGACATTGCAGAAGCAAAAGGGTGGCCTCTGCTCCAGGCAAGGCAGCTGGCTCTGT
CTGGGGGCGTCGGCCTGGGGCTTGGGTGCCACGTGCTGAGATTGCATAGTCAAAACAAGC
CATTTTTGCCAACAATAGCTTGTGGCTCCACATTTTTCTACCTTGCACTNAANGGCCA
GACCACTCTNTGCATGGACCAANACCATNTTCCAAACCCATGGGGCTTTTTTTNCC

Sequence 1668

CANGAATACTGAAAAATGAAGCCTAAAATGAAGTATTCAACCAACAAAATTTCCACAGCA
AAGTGGAAGAACACAGCAAGCAAAGCCTTGTGTTTCAAGCTGGGAAAATCCCAACAGAAG
GCCAAAGAAGTTTGCCCCATGTACTTTATGAAGCTCCGCTCTGGCCTTATGATAAAAAAG
GAGGCCTGTTACTTTAGGAGAGAAAACCAAAAAGGCCTTCACTGAAAACAGGTAGAAAG
CACAAAAGACATCTGGTACTCGCTGCCTGTCAACAGCAGTCTACTGTGGAGTGCTTTGCC
TTTGGTATATCAAGGGGTCCAGAAATATACTAGAGCACTTCATGATTCAAGTATCACAGG
AATTTACCTATTACAGAGTATCTTGCTTCTCTAAGCACATACAATGGATCAATCCATTA
CTTTTGCTTTGGAGGATGGAAGTTATGAGATATATGTTGAAGACTTGAAAAAAG

Sequence 1669

GTCGACCNCGCGTCCGCCCGCCATCACTGCTGTTCTCCAGGGCCAGCACTCGGGCGAG
GCAGGGGAGCTGCCTTCGGTACATAATTTGAAGGGGCACTCCCTCTTGGGCACATGCCGG
CCCTGAGTGCCTCCCTTGCCCTCACTCTGATCCTGGCCCCATAATGTCCTCAGTGGAAGGT
GATGGGGGGCCGGTGTGTGGGGAGAGTAGAAAGAGGGGTTGGCATGACTAAAAATACCA
TATGTGTATTAAGTATTTTGAGAATGAAATGCCAAGGAGTGCCTACTATATGCCAGCTCT
AGGAATGGAGTAGACAGTGGACACAAGAAGGACTTACGCCCTGAGCACAGGTGCCAATGG
TGACAAGACTGGCAAGACGTGAGGGCATGAATGGTTCATTACAGGCAGCTGCTGCAGATGT
GGTCACCTGGTGCCATCTGCTGCTCCCTTTTCCACTTTTCTATGTCCTCCTTCCACCCCA
A

Sequence 1670

CGACCNCGCGTCCGGTCTGAAGGGTCTGGCTGGTGAAGCCAGGTTTTAAAGGCAGCCGAGG
GGACCTGGGCCCCCAGGACCACCTCCTGTATCCTGCCAGGAATGAAAGACATTAAAGG
AGAGAAAGGAGATGAAGGGCCTATGGGGCTGAAAGGATACCTGGGCGCAAAAGGTATCCA
AGGAATGCCAGGCATCCAGGGCTGTCAGGAATCCCTGGGCTGCCTGGGAGGCCCGGCCA

TABLE 1
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CATCAAAGGAGTCAAGGGAGACATCGGAGTCCCCGGCATCCCCGGTTTGCCAGGATTCCC
TGGGGTGGCTGGCCCCCCTGGAATTACGGGATTCCCAGGATTCATAGGAAGCCGGGGTGA
CAAAGGTGCCCCAGGGAGAGCAGGCCTGTATGGCGAGATTGGCNCGACTGGTGATTTCCG
TGACATCGGGGACACTATAAATTTACCAGGAAGACCAGGCCTGAAGGGGGAGCGGNGCAC
CACTGGAATACCAGGTCTGAAGGGATTCTTTGGAGAGAAG

Sequence 1671

GAGTCGACCNCGCGTCCGCAACTGGTGTCCAGCTCGGTGCACTCCAAGCGCCGTTCCCGA
GCGGACCTCACGGCCGAGATGATCAGCGCCCCGCTGGGCGACTTCCGCCACACCATGCAC
GTTGGCCGGGCGGAGACGCCTTTGGGGACACCTCCTTCCTCAATAGCAAGGCTGGCGAG
CCCGACGGCGAGTCCTTGGACGAACAGCCCTCTTCTTCATCTTCCAAACGCAGTCTCCTG
TCCAGGAAGTTCCGGGGCAGCAAGCGGTACAGTCGGTGACCAGGGGGGAGCGGGAGCAG
CGTGACATGCTGGGCTCCCTGCGGGACTCGGCCCTGTTTGTCAAGAATGCCATGTCCCTG
CCCCAGCTCAATGAGAAGGAGGCCGCGGAGAAGGGCACCAGTAAGCTGCCAAGAGCCTG
TCATCCAGCCCCGTGAAGAAGGCCAATGACGGGGGAGGGCGGCGATGAGGAGGCGGGCAC
GGAGGAAGGCAGTGCCCCGTCCGAAT

Sequence 1672

CGCGTCCGCTCGCGGCNNGGGCATCGNGTACATCCTCAGCAACCATGGGCTACGTGCGCCA
GCTCTCCCAGGCCCTGGACACATCCAACGTGATGGTGAAGAAGCAGGTGTTTGAGCTACT
GGCTGCCCTGTGCATCTACTCTCCCAGGGGCCACGTGCTGACCCTGGACGCCCTGGACCA
CTACAAGACGGTGTGCAGCCAGCAGTACCGCTTCAGCATTGTCATGAACGAGCTCTCCGG
CAGCGACAACGTGCCCTACGTGGTCACCTGCTTAGCGTGATCAACGCCGTATCTTGGG
CCCCGAGGACCTGCGCGCGCGCACCCAGCTGCGGAACGAGTTTATCGGGCTGCAGCTGCT
GGACGTCTGGCTCGCCTGCGGTGAGTCCCCACTGTAGCGGTCTGCCGNTTNCOCCTC
CTGCTCCCAAGGCCAGGCCACCTGCCCTTTGGCTCCCAGCCACCTCACCTAAGCAGCAC
CTTCCAGATGGCAGGGGAGGTGGC

Sequence 1673

GTCGACCACGCGTCCGGCCAGAGCTGAGTGGCAGCCGCCTCCCTTATGCAGGACATGTGC
TCTCGGCTTACCAGGGTTCTGACCGGGTCTGCTTCTGCATTACAGCGCCTCCTGGACC
TGAAGGCATCTGAGTGTGAGACCCTGTTCTAAGTCTTAGAAGTGACATTGTAAGAGGTG
TGGGGACCAGCTAATTGGTCCAACCCAGCCTGAGTGCACCACCCTTTGAACAAATGTATC
AGTGATGAAAATTTGCCTTTGCCCCGGCTTGCTGTAATCCCAGCACTTTGGGAGGCCGA
GGTGGGCGGATCACTTGAGGTGCGGAGTTGAGGACCAGCCTGGCCAGCGTGGCGAAACCC
CGTCTCTACTAACATAAAAAAATTAGTCAGGTGTGGCGGTGCGTGCCTGTGGTCCCAGC
TATTCAGGAGGCTGAGGCACCAGAATTGCTTGA

Sequence 1674

TGACGGCGGCCCGGCCGACGGGAGCCGGGGCGGGGCGGCGGNCCANCGAAGGAGCGCGCG
GGCGGTCTGGCCCCGCCCTCCCCGCCCGCTTCCCGGTGACCTTCAGGGGCCCGGGTG
GCGGGCGCAGGCCCTGCGGCGGCGGCGGGATGTTGTCAGGAGGAGAAGATCTTCGCG
GGCAAGGTGCTGCGGCTGCACATTTGCGCGTNCGACGGCGCCTAGTGGCTGGAGGAGGCC
ACCCNNGGACACCTACNGTGGANAAANCTCAAGGAGCGCTTGCTCAAAGCACTGTGCTCA
TGGGGAGCTTANAAGATCCCCAAAAGTATAACCCATCATTAAATTTAATCCCACGCTGCC
TNAANANAAGGGGTGCTTGNGTGATTGCCATGNACCATNCTTGGGAAGGAAGAAACCAT
CCCAGGACCCAAAAGATGGGCCCTATTTNTTGGATTA

Sequence 1675

CACGCGTCCGGGATCCCGTACCCGGGACAGACTCGGCGCCGCTGGCTGGCCTGGCCTGGT
CGTGGCCTCTGCACCCCGGCCGCGGGGGTTGAGCGCGATCTCCTGCACCGTCGAGGGGG
CACCCGCCAGCTTTGGCAAGAGCTTCGCGCAGAAATCTGGCTACTTCTGTGCCTTAGTT
CTCTGGGCGAGCTAGAGAACCCGAGGAGAACGTGGTGCCGATATCCAGATCGTGGTGG
ACAAGAGCCCCCTGCGGCTTCTCCCCGTCTGCGACCCCATGGATTCCAAGGCCT
CTGTGTCCAAGAAGAAACGCATGTGTGTGAAGCTGTTGCCCTGGGAGCCACGGACCGG
CTGTGTTTGATGTCCGGCTGAGTGGGAAGACCAAGACAGTGCCTGGATACCTTCGAATAG

TABLE 1
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GGGACATGGGCGGCTTTGCCATTCTGGTGCAAGAAGGCCA

Sequence 1676

TCCCTCTGCTGATGATGGATGCCCCCTAACACCTGTGCCTAACACCCCTACTGAACCCAC
AGCTCCAGCCTTAGTTTTGGAGTCAAGTGTTAAAGGTTTCTGGCCAGAGGAATTGGGGT
CTTGCCATCCCTGCAATAGCCCTTTTATGGGCTCTGGGAGACAGCTTTAGGGAATAAATG
GGGATTTTCCCCTTTTTCTACCCACTCCTTTGCTTCCTCCAAGACTTACCCAACCTCCTC
CCCCTCAGAGAACCAAATAGCCTGAGGAAGCAGGAGAGTTCTGGTTATGGCAGATTCTT
GGTGATTTGGGGCTTCAAGACAGTAGGTGAGAGATGCTGTCAGGGACGTATCTTCTTCAT
ACCAAAGTCACTGGTCCTTTCTCAGCCTCTCTCGTGCTTTTCTCCTAATGACCATATTTT
TGCCAAAATTGGGAATATGTTATCTGACAGACCAGAATATTTGAAGGTTTGGGCTG

Sequence 1677

GCGCCGCGGATATNCGGATCAACCTATGGTNTCAATATTGTNAGTTATTGAGCATAAACA
GAATTATTTCCCAANACTTGATCTGAAATATTNNTAATGGTCNTACTNGAACTTATATT
CTTNCTGGGAGNGANGTNTTATCATTTTTCCATGGAGACAGGTTCTAACTCTGTTGCC
AGGCTGCANTGCAGTGATGTGATCATAGCTCACTGCAGCCTGAACTCCTGGGTGTCAAG
TGATCTCTGGCCTCAGCCTCCCAAGTAGTTGGAACCTCAGATACGTGCCACCACAACCAG
CTAATTTATTTTTAGAGATGAGGTNTCGCTATGTNGCCAGTCTGGCCNNCTAGCCNCA
AGTGATCTGGCCATCTNAGCCTTCAGTTGGAGATGTCTGATTTATGTTAATAAGAAAG
CTGTTGATCGTTTATCATAAANGCATT

Sequence 1678

GTCNCCNCGCGTCCGCTCCTCCGCCGGCATGCAACTCGGCGCCCGCGGTCCATGGACCGG
AACCTCGGGCCGACGGACGGGAACCCGGGCCGCGATCGCCGCTCCCCGCCTCAGGCTCC
TCCTCCTCGCTCTCCGCCGCTCCGCCGACTCCCGCAGGCCCTGCACCGCCGCCGCCAG
GCTAGCGGAGCTGCCCGGGGAAGCTGGGTGACGGGTTCCGCGGCTGCCGCCGACTGCGGC
CTACTCCGCGCCTCTCAGTGCTATTGTCCTGGGCTGGCCTTGAGCGGGTCCACTGGG
GAAGGCNCGTGTGCGCCGCTCCGCCGAAGATGCCGGACCAAGCCCTACAGCAGATGCTG
GACAAGAAGTTGCTGGGTTTGTGTTGCTACTGATGAAGATGATAGAACAGCTGAATGGGT
GAGGACCATGGCAGGTGCAGGAGGATCTACAAATGGGTTACCAGGGCCTGTCTACAAC
GCTGGGTGGATGAAAAGCAAAGAG

Sequence 1679

GCGTCCGGGCGCCGCGACCGAGCGTGCGGACTGGCCTCCCAAGCGTGGGGCGACAAGCTGC
CGGAGCTGCAATGGGCCGCGGCTGGGGATTCTTGTGTTGCCTCCTGGGCGCCGTGTGGCT
GCTCAGCTCGGGCCACGGAGAGGAGCAGCCCCGAGACAGCGGCACAGAGGTGCTTCTG
CCAGGTTAGTGGTTACTTGGATGATTGTACCTGTGATGTTGAAACCATTGATAGATTTAA
TAACTACAGGCTTTTCCCAAGACTACAAAACTTCTTGAAAGTGACTACTTTAGGTATTA
CAAGGTAAACCTGAAGAGGCCCGTGTCTTTCTGGAATGACATCAGCCAGTGTGGAAGAA
GGGGACTGTGCTGTCAAACCATGTCAATCTGATGAAGTTCCTGATGGAATTAAATCTGCG
AGCTACAAGTATTCTGAAGAAGCCAATAATCTCATTGAAGGAATGTGAACAAGCTGAACG
ACTTGAAGCAGTGGAT

Sequence 1680

GTCCGGCGTGGGGAAGGGTGGGGTGAGGGGGCGTGGCCGCGAGCTAGGGCGGCGAACTCT
CTCCCCCTCGGCCCCACCGCGTGGGACGGCGTGAACGTGGTGTGCGAGGGATGTCAGCCT
TCTCTGAGGCGGCGCTGGAGAAGAAGCTGTGCGAGTTGAGCAACTCGCAGCAGAGCGTGC
AGACCTTGTCCCTGTGGCTCATTACACCGTAAACACTCGCGGCCCATCGTCACCGTGT
GGGAGCGGGAGCTGCGGAAAGAGTGGAGGTGCAACAAATGAGAAATTCAATTGGAGATT
TTGTCAAACAGGAATTTACTCCAAACCAAACAGGAAGCTTACTTTTCTCTACCTAGCCAA
TGATGTCATACAGAACAGCAAGAGGAAGGGGCCAGAGTTTACAAAAGATTTTGCACCAGT
TATA

Sequence 1681

CCGGCAAAGCAGGGACTCCTGATTTATATGTCCCTCCTCCTGGCAATCCTCTCACCCAC
CTCCCTGAGAACCTCAGTTCTTCTAAATTGCTAAAGCTGAGGGGAAAGGGATGCTTTG

TABLE 1
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CGGCAAAGGCGCTGCTGCCTCAAGCTTGCTTTACATGCCTCTCTAGTTCCTCTCGCACTA
CAGAGTGGTAGCGAACAAAAGCGTTGCGCCCTAGAAGCGACCTGAATGGAAAAATCTGCAC
ACGAATAATGGGTTTGTACGGAAAGTAGGGAACCGGGTCTGCAGCATTCCCTGGAGAC
AGACTTTCTGGTTGGTTTTCAAGGGTCCAAGGCAGCCATCAGCCCGGCTGTGCCCTCCCA
CCCTGCCTCCCACCCAGTTGATTCTCTCTTTGTGTAAGTTTAGCCCTCTGAGGGTGGTG
GAGTGAGAGCATCCCATCAGATATATATACGATTTCATCAGTCGGCACTTAAAAAG

Sequence 1682

TCACCNCGCGTCCGAAAAACGCAGATGATATACCTGCAACATCNGTCATGGCTGCGCCCT
GTGCTCAGAAGCAACCCGGGTGGAATATTGCTGGTGCAACAGTGGCAGGGCACAGTGCCA
CTCAGTGCCTGTCAAAAGTTGCAGCGAGCCAAGGTGTTTCAACGGGGGCACCTGCCAGCA
GGCCCTGTACTTCTCAGATTTCTGTGTGCCAGTGCCCCGAAGGATTTGCTGGGAAGTGCTG
TGAAATAGATACCAGGGCCACGTGCTACGAGGACCAGGGCATCAGCTACAGGGGACAGTG
GAGCACAGCGGAGAGTGGCGCNCAGTGCACCAACTGGAACAGCAGCCGCGTTGGCCCAG
AAGCCCTACAGCGGGCGGAGGCCAGACGCCATCAGGCTGGGCCTGGGGAACCACAACACTAC
TGCAGAAACCCAAGATCGAGACTCAAAGCCCTGGTGCTACGTCTTTAAGGCGGGG

Sequence 1683

CCGTCCGCTCCTTGGCAAGAACGAAAGGTGTGATGAAACCTCCCTGCTCGGAAGGGTCTC
CGTGAGGTGTCTCATTTACATGCTGGGTTTTGCAAGCGAGGAAGCCAGGCAGTGGAG
GAACTAGAGAGAGGCAGGCGTGTGTGTGGACAAGCGCTGGAGCCGAGCCCTCAGACTGG
CACGGGAACGCCAGCGTTGGGTGTTTACAGATTCACGCGTATGTCTGGGCTCACTCACAGC
ATGGCCGAGTGTCTGCAGTGTGCTGGTCTGACCCTTCAGAGCAGCAGTGGACAGATGAGA
TAAGACTGTTTCAGAAACAAAGATGGCCACAGCCTTCCTAACAAGCAGGTCTCTGGCCA
TGTCTGTATTGTAAGTGGTAAAAGGCTTCAAGTCAGATTGATGATCAAGAAAANGTCAAA
ACCCAGCCCAAGATTGGGAAAGCAGGTTNGTGGNTCCAANGCTTTTTAAAAAATTATT
TGAAGCTCTTCATTCTNTTCTGTGAGTGTGCTTTCTCTT

Sequence 1684

NCCCATACTGGGGGCCCCCTTCTGTCAGGCCCCATCAGGTGCAGAGCTGTGGGTCTGGTT
CCAAGACACTGTCACTGATGTGGATAAATCTTGAAGGAGCTCAGTAATGTCCTCTCAGG
GATCTTCTGCGCCTCTCTCAACTTCATCGACTCCACCAACACAGTCACTCCCACTGCCTC
CTTCAAACCCCTGGGTCTGGCCAATGACACTGACCACTACTTTCTGCGCTATGCTGTGCT
GCCGCGGGAGGTGGTCTGCACCGAAAACCTCACCCCTGGAAGAAGCTCTTGCCCTGTAG
TTCCAAGGCAGGCCTCTCTGTGCTGCTGAAGGCAGATCGCTTGTTCCACACCAGCTACCA
CTCCAGGCAGTGCATATCCGCCCTGTTTGCAGAAATGCACCGCTGTACTAGCATCTCCT
GGGAGCTGAGGCAGACCTGGCAAGTTGATTTGATGCCTTCATCACGGGGCAGGGAAAGA
A

Sequence 1685

CCGCTGGTTATTACCCAGCTGGATGGTTTCCTTTTAGGCAAGAAGGAGGTCATCAGCAGG
CTCCCAACAATAATGCCGAAGTTAACAATGATGGGCAAAATGCAACAACCTTGGAACCTG
AAGAAATGGAGCGTCTTATGGATGATGGGCTTGAAGATGAGAGTGGAGAAGATGGAGGTG
AAGATGCCAGTGCAATTCAAAGGCCTGGATTAATGGCTTCAGCTTGGTCTTTCATCACCA
CCTTCTTTACTTCACTAATACCAGAGGGGCCTCCCCAGGTTGCCAATTGACCTGAAAAAC
TGTGCCAGCTACAAGGAGGGTCTGACTTCAGGAAAGTGGTTTAAATAACAGTGCAATTC
AAAAAATTTATAACTTTCTTTTGATCATCATGTACAGAGGTGTTTTTTTCTTTAGGCT
TCTCATGCATATGAATATTTAAGCACGAATGGACTACTAAATATCTGAGTTTTTTTTT
TTTTTTTTTAAAGAATC

Sequence 1686

CGCGCCGTTTTGGCTGCCCTGCATAAGCTGCTACAAATAGAATAAAGAATTCATACGCC
TGTATCTATCATTTAGATGCATGGAAAAAATGGGCTTTGCACACAATGGGTTTGGAGCT
GACTGGGAACAATGGAAAAAATTACATTAGCTGTGGTTGTAAGTTTTTTTGTGTTTGGT
TTTGTTTTTTTTCTTTTTCTTTTTTTTTTTTTTACCATCTTGTGAAAGGTTTCTGAA
ACTCGATAATAAAAAGCGGTTGGTGTAATTATCTTTTGTGTCACATTTTAGAAGGAA

TABLE 1
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AAACATAAAAGAATGTATCCTTAGTACTGGTTCTTAAACAGCCCATAAAAAACCCATTGGC
CTGAAGCTTATATCTCAGGCCTATGCCCATCTTATAGTCTTGGAAGACAAAA

Sequence 1687

CGCGTCCGTGGGTCTCGCCCTCAACCTGTGCATGTATATGTGTGTCTTTGTGTGTGTATG
TGTGATCTCTGCCTGCAGGACCAGCCCGGTGGCACCCTGGATCTGACCCTGATCCGTGCC
CGCCTCCAGGAGAAGTTGTACCTCCCTACAGCTCCCCACAGGAGTTTGCCAGGATGTG
GGCCGCATGTTCAAGCAATTCAACAAGTTAACTGAGGACAAGGCAGACGTGCAGTCCATC
ATCGGCCTGCAGCGCTTCTTCGAGACGCGCATGAACGAGGCCTTCGGTGACACCAAGTTC
TCTGCTGTGCTGGTGGAGCCCCCGCGATGAAGCCTGCCTGGTGCTTGGCCTGAAGTTTC
CCAAGGAAGCTGTCTGGTGGGCCCCCTTGGGTGATGGGCCCCCTTGGAGGGCTTGAAGCCC
CCCCATGGGCCAAGCCCCAGCCCTGGGCTTCTGGTTCNTCTTGTCCTGGTCACCCCCAT
CCCCACTCCCCCTTGGGTGGGCTTGAACCTNCCACTTCCCTTGGGTGGGGCCC

Sequence 1688

AGGAGGNTTGAAGGAGTTGNNGGAGGAGGAGGATGGAGGCGAGGGCGAGCGAGCCCAGCG
GGGTCCNGGNCGCCCGCGGGCCAAAGTCGAGCCCTNCCGCCNNTGGGCGAGCGCGCCAG
CCGCCNNTTTCANAACAGTTCGNCGCCACAAAANAAAAGAACGGGGGGGTGCCGAGGTTN
CCATTGANCTCTTAAAGTGGTGCAGGTCCCTGTTGAGTGCGCTGCACCGGGCCGTGACC
CGCGCCCCTGTGCGTCCC

Sequence 1689

GGAGTCGACCACGCGTCCGCGCCGGCCGCGGTGTCCGGACCGCTCGCCCCCGTTTGGAC
CCGACTTCGGTTCTTCTGGGGTGTGATGCTCCTAAAGCCCGAGAGCACGTGTCCAGACC
CTAGCCTGTACGACGCTGACTCTGCCCGGTCCCAGAACCAAGCCATGCCGGGGTGTGGC
CTCTGACCCACGCGGAGGGGACCTCGCCTTGCGGGACCCACCTGGAACCCGACCTNCC
AGNCTCGCAGCCGGCCTGAGCCGCCATGCGCGGGAAGTTGCTGCCGCTGGCCGGCCTATA
CCTGGTGCAGGGCCTGCCCTACGGGCTCCAGTCCGGCCTCCTGCCAAATGCTGCTTGGT
GCCGGCGGCCTCTCGCTGACGCGCGTGGGGCTGGCCAAGGTTCTGTACGCTNCGTGGCTT
GCTTCAAGCTGGCT

Sequence 1690

CNCCCCGCGTCCGCGGACGCGTGGGTGCTTGTGCTGAACCTGAGCTGCAAGTTGGAATT
GATATAATGAAGACTAGTTTTCCAGGTCGTGGTTCAATTCCAGAATTCTTTCATATTATG
AAAAGAAAGTTTACCAACAAAGAATGGGAAACAATCAGAAGCTTTAAGGATGAGTGGACT
CAGCTGGATATGTTTTATAGGAATTGGGCACTTAAGGAAAGCTTCATAAAAGCCATTGGT
GTTGGACTAGGATTTGAATTGCAGCGGCTTGAATTTGATCTATCTCCATTAACTTGGAT
ATAGGCCAAGTTTATAAGAAACACGTTTATTCCTGGATGGAGAGGAAGAAAAAGAATGG
GCATTTGAGGAAAGCAAAATAGATGAGCACCATTTTGTGAGTTGCTCTTAGGAAACCC
GATGGGATCTAGACATCAGGGGATGTTCCATCTCAGGATGATTCCAAACCAACCCAGAGG
GCAATTTACTATTCTCAACTTTAATGATTTAA

Sequence 1691

GACCACGCGTCCGCCCCGTCCAGGAGCCCTAGGAGTGCTACGGGGGGCCGGAGCCTTGCCC
GGGCCGCTGCCCGTCCCTGGATTCCGGGGCTGGACGCAGCAAGCGGGGCGCTGTGTCCCC
AAGTCCCCGTCTCGGCCAGGCGGGCACCACGGCAGGGGCTGAGCTACCCTCATGGAAG
GGAGAGGACCGTACCGGATCTACGACCCTGGGGGACGCTGCCCTCAGGAGAGGCATCCG
CAGCTTTTGAGCGCCTAGTGAAGGAGAATCCCGGCTGAAGGAAAAAATGCAAGGGATAA
AGATGTTAGGGGAGCTTTTGAAGAGTCCAGATGGAAGCGACCAAGGCTCCGGCAGAAGG
CAGAGGAGCTAGTGAAGGACAACGAGCTGCTCCCACCACCTTCTCCCTCCTTGGGCTCCT
TCGACCCCCTGGCTGAGCTCACAGGAAAGGACTCAAATGTACAGCATCTTCCACAGCCC
C

Sequence 1692

ACAGAATTTAGGGGTGGGTGAAAGCACTTGNGCTTTAGCTNTTTCATATTAATATATAT
CTATATTTAAACATTCATGGCATAGATGATGATTTACAGACAATTTAAAGTTCAAGTCT
GTACTGTTACAGTTTGAGAATTTGTAGTATTACATCATTACATAAGTCATTTTAGTAACA

TABLE 1
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GCCTTTGTGAAATGAACTTGTTTACTATTGGAGATAACCCACACTTAATNAAGAAGAGACA
GTGAAAGTACCATCATAATTAACCTAAATTTTTTGTATAGCAGAGTTTTCTTGTTTAAA
AAAAAATAAAATCATCTNGAAAAGCATTGTTGTACAGTTAAATGTATAATGAAGCTTTTG
CCAACCAGACTGGTGCTTAGCAACCAAATTTTTTTTTTAAATAAAGCTTTTATGGCAGGT
GGGTAAATAAGGTGGCCTTCAAATATATTGGTGTCTTGATGGAGAGTTNTTATGTTGAA
ATGAATGTGGGTCTTTTCT

Sequence 1693

CGGTTAACATGGCCGTCACCGACAGCCTCAGCCGGGCTGCGACTGTCTTGGCAACTGTNT
TGCTCTTGTCCTTCGGCAGCGTGGCCGCTAGTCATATCGAGGATCAAGCANAACAATTCT
TTATGAAGTGGCCNATCAAACAANCTGGGCCTGTTCTTGGTGTGTACATCCCCGATTCTG
GTATTAATTATCGACATGTTGCAAATACCCTTTCTGTTTATAGAAGTGTCAAGAGGCTAG
GTATTCCTGACAGTCACATNTGCCCTAATGCTTGACAGATGATATGGCCTGTAATCCCTA
GAAATCCCAAACAGCTACAGTGTTTGTAGTTTACAANCAATNTGGAATAAATGGTGTAT
GGGAGAATGATGTGGGAAGGTGNNATTATAGAAGTTTNTTGAGGTAAACNGGTGGGAGAA
NNNTTTTTTACCNGGGTAATTTAANCTGNGGGAGGGANTCCCCACCCTAAGTANCTTCC
TTCGGG

Sequence 1694

GTCCGCAAGATGGACGCAGCTCTCTGACCTACGACACTCTCCGGTTTGCTGAGTTTGAAG
ATTTTCCTGAGACCTCAGAGCCCGTTTGGATACTGGGTAGAAAATACAGCATTTTCACAG
AAAAGGACGAGATCTTGTCTGATGTGGCATCTANACTTTTGNTTTACATACAGGAAAAAC
TTTCAGCCATTGGGGGGACAGGCCCCACCTCGGACACAGGCTGGGGCTGCATGCTGCGG
TGTGGACAGATGATCTTTGCCCAAGCCCTGGTGTGCCGGCACCTAGGCCGAGATTGGAGG
TGGACACAAAGGAAGAGGCAGCCAGACAGCTACTTCAGCGTCCTCAACGCATTTCATCGAC
AGGAAGGACAGTTACTACTCCATTACCAGATAGCGCAAATGGGAGTTGGCGAAGGCAAG
TCCATAGGGCCAGGTGGTACGG

Sequence 1695

CCCCGCGTCCGCTCGNAGCTGTCCGCGGTCTGTTTGGCCCGAACGGCGGGCGGAGGCGCTG
ATCATGGCGACATTCATCTCGGTGCAGCTGAAAAAGACCTCAGAGGTGGACCTGGCCAAG
CCGCTGGTGAAGTTCATCCAGCAGACTTACCAAGCGCGGGGGAAGAGCAGGCCAGTA
CTGCCGCGCGGGCGGAGGAGCTCAGCAAGCTGCGCCGCGCCGAGTCGGTCTGCCGCTGGA
CAAGCACGAGGGCGCGCTCGAGACGCTCCTGAGATATTATGATCAGATTTGTTCTATTGA
ACCCAAATTCCATTTTCTGAAATCAGATCTGCTTGACATTTACCTGGAAGGATGCTTT
CGATAAAGGTTCACTTTTGGAGGCTCTGTAAACTGGCTCTTGCAAGCTTAGGATATGA
AAAGAGCTGTGTTGTTGTTCAATTGTGCAGCCTTAGCTAGCCAAATTGCAGCAGAAACAG
AACCTGGATAATGATGAAGGGATTGAAAATCGCT

Sequence 1696

TTCGGGAGTCGACCCCGCTCCGGGCCAGCCGGCTCGCCCGGGGGCCATGGCAGCAGCGG
CTACTGCAGCCGAGGGGGTCCCCAGTCGGGGGGCTCCCGGGGAAGTCATTTCATCTGAATG
TGGGAGGCAAGAGATTACGTACCTCTCGCCAGACTCTCACCTGGATCCAGACTCCTTCT
TCTCCAGTCTTCTGAGCGGACGCATCTCGACGCTGAAAGATGAGACCGGAGCAATCTTCA
TCGACAGGGACCCTACAGTCTTCGCCCCCATCCTCAACTTCCTGCGCACCAAAGAGTTGG
ATCCCAGGGGTGTCCACGGTTCAGCCTCCTCCATGAAGCCCAGTTCTATGGGCTCACTC
CTCTGGTTCGTGCGCTGCAGCTTCGAGAGGAGTTGGATTGATCTTCTTGTTGAAACGTC
CTCTTCAATGGTTACCTGCCGCCACCAGTGTTCCAGTGAAGCGGCGGAACCGGCACAGC
CTAGTGGGGCCTCA

Sequence 1697

CGTCCGAAGGAAGGAAGGGACGGGCTGAGTTCCCCGACGAGAGACACACCCAGATTTTCC
TGCAGCTTGGGGAGAGGTCCTCCAGGAGCCTTGGTCCCTCCTGGCCTGCCGGAGTCCTT
AGCCAGGATGGAGGCTGTTGTGAAGTTGTACCAAGAGGTGATGAAGCACGCAGATCCCCG
GATCCAGGGCTACCCTCTGATGGGGTCCCCCTTGCTAATGACCTCCATTCTCCTGACCTA
CGTGTAATTCGTTCTCTCACTTGGGCCTCGCATCATGGCTAATCGGAAGCCCTTCCAGCT

TABLE 1
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CCGTGGCTTCATGATTGTCTACAACCTTCTCACTGGTGGCACTCTCCCTCTACATTGTCTA
TGAGTTCCTGATGTGCGGGCTGGCTGAGCACCTATACCTGGCGCTGTGACCCTGTGGACTA
TTCCAACAGCCCTGAGGCACTTAGGATGGTTCGGGTGGCCTGGCTCTTCTCTTCTCCAA
GTTT

Sequence 1698

CGCGTCCGGCCGCGCCCATGGCCCGCCGCTGCCCGGCCGCGCGGGCGGGCCCGCCACGCC
GCTGTGCGCCACGCGCCTGTGCGGGCTGCAGGAGAAGGAGGAGCTGCGCGAGCTCAACGA
CCGCCTGGCGCACTACATCGACCGCGTCCGCGCGCTGGAGCTGGAGAACGACCGGCTCCT
GCTCAAGATCTCAGAGAAGGAGGAGGTGACCACGCGCGAGGTGAGTGGCATCAAGGCGCT
GTACGAGTCGGAGCTGGCCGATGCCCGGAGAGTCTGGATGAGACGGCTCGAGAGCGTGC
CCGGCTGCAGATAGAGATTGGGAAGCTGAGGGCAGAGTTGGACGAGGTCAACAAGAGCGC
CAAGAAGAGGGAGGGCGAGCTTACGGTGGCCAGGCGCGTGTGAAGGACCTGGAGTCCCT
GTTCCACCGGAGCCGAGGTGGAGCTGGCAGCTGCCCTCAGCGACAAGCGCGCCTGGAGA

Sequence 1699

ACGCGTCCGGAAGAATCTACACTTCTTTGCACCAGAGTATGGAGAAGTCACTAATGTGAC
AACAGCAGTGGACATCTACTCCTTTGGCATGTGTGCACTGGAGATGGCAGTGCTGGAGAT
TCAGGGCAATGGAGAGTCTCATATGTGCCACAGGAAGCCATCAGCAGTGCCATCCAGCT
TCTAGAAGACCCATTACAGAGGGAGTTCATTCAAAAGTGCCTGCAGTCTGAGCCTGCTCG
CAGACCAACAGCCAGAGAACTTCTGTTCCACCCAGCATTGTTTGAAGTGCCCTCGCTCAA
ACTCCTTGCGGCCCACTGCATTGTGGGACACCAACACATGATCCCAGAGAACGCTCTAGA
GGAGATCACCAAAAACATGGATACTAGTGCCGTAAGTGGCTGAAATCCCCAGGCCCTGAT
CTGCGCTGTGGCTGTCCCTGGGACGTGCTGCAGCCCTCCTGTCCCTTCCCCCAGTC

Sequence 1700

GGGAGTCGCCCCGCGTCCGGATTTCAGTTGGTGGCGTCATAGTCTCATTACAGTGTCTAT
CTTGGCATTACCAATTTACTTGTCTCTTTGTCCCACTATTAGGGATATCTTTGGTTT
TATTGGTGCATCTGCAGCTTCTATGTTGATTTTTATTCTTCTTCTGCCTTCTATATCAA
GTTGGTGAAGAAAGAACCTATGAAATCTGTACAAAAGATTGGGGCTTTGTTCTTCTGTT
AAGTGGTGTACTGGTGATGACCGGAAGCATGGCCTTGATTGTTTTGGATTGGGTACACAA
TGCACCTGGAGGTGGCCATTAATTGGCACCCTCAAACTCAAACTCAGTCCATCTGATGC
CAGTGTTGAGTAACTCACTACTATGAAATTTACCTAATGTTTTAGTTTCACTTCTCT
TTTGAAGTGCAGATTCTCGCTGGTTCTTCTGAGTGCAGAATAAGTGAACTTTTTTGTTT
TGGTTTGNTTTTTTAAGAAAC

Sequence 1701

CCCACCGTCCGCGCGCGGCGCCTCGCCTCGGCCGGCGCCTAGCAGCCGACTTAGAACTGG
TGCGGACCAGGGGAATCCGACTGATAAATTAACAAAGCATCGCGAAGGCCCGCGGCGG
GTGNTGACGCGANTGCGATNTNCTGCCANNGCNTCTTGAATGTCAAAGTTGAANAAANC
CAATGAAGCGCGGGTAAACGGCGGGAAGTAACTAATGACTTCTCATTAGGGTAGCCAAA
NGCCCTTCGTCATCTNAATTAAGTTGGACCGCGCANTGAAATNGGATGAAACCNAGANTT
CCCACNTGTCCCTACCTACNTAATCCAAGGCGGAAAACCAAGCCAAAGGG

Sequence 1702

CGACCACGCGTCCGGACAGATTGATAGCTCTTTCTCGATTCCGTGGGTGGTGGTGCATGG
CCGTTCTTAGTTGGTGGAGCGATTGTCTGGTTAATCCGATAACGAACGAGACTCTGGC
ATGCTAAGTACTAGTTACGCGACCCCGAGGTGCCTGACCAGTTCTACCGCCTGTGGCTATCCC
TCTTCTGCACGCGGGATCTTGCACTGGCTGGTGTCCATCTGCTTCCAGATGACTGTCC
TGCGGGACCTGGAGAAGCTGGCAGGCTGGCACCGCATAGCCATCATCTACCTGCTGAGTG
GTGTACCCGGCAACCTGGCCAGTGCCATCTTCTGCCATACCGAGCAGAGGTGGGTCTGTG
CTGGCTCCAGTTCCGGCATCCTGGCCTGCCTCTTCTGGAGCTCTTCCAGAGCTGGCAGA
TCCTGGCGCGGCCCTTGGCGTGCCTTCTTCAAGCTGCTGGCTGTGGTGTCTTCTCTT
CACCTTTGGGCTGCTGCCGTGGATTGACAACTTTGC

Sequence 1703

TABLE 1
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GATCGACTTCGCCTGACGGAATCCAGGGGTCGTAATATATGTAAACTCGCGTCCGNGCTG
CGTGCCCAAGTAGTGGCCGAATACCTTAACGGGGCTGTGCGCGAGGAGAGCATCCACTG
CAAGTCGGTCGAGGAGATCTTCGACGCTGGTGCAGAANCTGGCCGACCAGTCGGGCTTGG
ACGTGATCCGCATTGCAAGCCCTTCCACACANGACAACCACTAGCATTACAGGGCCAGTA
GGCACCCCTTCACCAACAAGCTTGACCACGTGTCCCGCGGAACCTANCGCACCCCCGAGNA
GGGTTCAANGNATTCCTTGACCCAGCCAGATGCCCTGGCTTNTGGGGGGNCAAGTGAC
CCTTTGTGNAACCCACTCATTTTTTATGGCAAGGTGAGCATTNCCTAAAAACCCTTGAAA
AATGANGGGAANAACCTTCAAGGGGTTTTTACAGGGCCCTTGGTTTTTTTTAAATCCC
CAANATTTGGATAATAAATGGAATCCTCAAAAACACAAGTGGAGGAAGGNTCTTGAAAGG
GC

Sequence 1704

TCGACCACGCGTCCGGCCGGAGAACTTGAGCCGGCTGCCCCGCCACGGTGCCCGAAGC
CCCAAAGGCTGGAATTAGGGGCTAGAAGTCTGGCACCCACCGCCTGGCCAGGTGTTCTGGG
ACGCGACCAGGTGGGCGGTGCGCCCGCCCCGGAGCGCGCTTAATAGCTGAGAGCCCGG
GGGCCAGGCCGNGGCTGCGGCCAGGCAACGCCCTGAGGGTGGCCACGCTGNCAGGTGTT
CCTCTCCCCGGGACTATGGGCAAGGGCCCCGGGGCGGGGAGGGCGGCAGGTGCTGACACT
GGAGCTGCGCCGAGGTGCGGGAACCTCGGCCTCCTAAGACTGAGGACACTCGCCTGCTGG
GCCGGNCGAGCTGTGCGGTGCCCTCCGGGACGCAGGGGGCGCTGCAGCCACGCTGGGTCA
GGCTCCGAAGGGCCCTCCCAACCCGGGGA

Sequence 1705

CGCCACGCGTCCGGAAAGATGGAGGTGTGGGGACAGGAGCTGGGTGTGCTGGGGACTGGC
CGCGGACCCCTAACCTGTGTCTCCGGTCTCCCTCCGGGAGCGGCTCAACCCAGCCCATCG
CTCTGGCCCCGTCTGCGCCCTGCAGGGTGGTGGTTGGGACGTTGAAATGAGCGCGCGAGT
GGTACGTCTCTCTCCGCGCTCACGCCCCCTCCTCACCGTGTTCCCGCCAGGACCATC
AGCACGTGCCCATCGACATCCAGACCAGCAAGCTGCTCGATTGGCTGGTGGACAGAAGGC
ACTGCAGCCTGAAATGGCAGAGTCTGGTGCTGACGATCCGCGAGAAGATCAATGCTGCCA
TCCAGGACATGCCAGAGAGCGAAGAGATCGCCAGCTGCTGTCTGGGTCTACATTCACT
ACTTTCACTGCCTAAGAATCCTGGACCTTCTCAAAGGCACAGAGGCCTTCCACGAAGAAT
ATTTTTGGC

Sequence 1706

TCGCCNCGCGTCCGCTGAAGCAAGAGAATCACTTGAACCCAGGAGGTGGAGGTTGCGTGA
GCTAAGATCGCGCCACTGCACTCCAGCCTGGGCGACAAGAGTGAAACTCCGTCTTAAAAA
AGCCCATGGCAGGCTGGGCGCGGTGGCTCACGCCCTGTAATCCCAGCACTTTGGGAGGCCA
AGGTGGGCGGATCACAAGGTGAGGAGATCGAGACCATCCTGGCGAACACGGTGAAACCCC
GTCTCTACTAAAAAAATACAAAAAATTAGCCAGGCGTGGTCTGTTGGGCACCTGTAGTCC
CAGCTACTCAGGGGGCTGAGGCAGGAGAATGGCGTGAATCCGGGAGGCGGAGCTTGCAGG
GAGCCGAGATAGTGTCACTGCACTCCAGCCTGGGTGACAGAGCGAGACTCCGTCTCAAAA
AACAAAAAGCCCGTGGCAATTAATGGTAAAGGAAACCCGGCTTTAGTGTAAGAGGTAA
CATAA

Sequence 1707

GCGTCCGGCCTCCAGCAAAGCCCATTCAAGTCAGCTCTGCAGGCTCATCTTACAAGAATAA
TCCCTTTGCCAGCTCAATCTCCAAACATGGGGTTTCTTCTGGCAGCTCTTCTCGGGAGG
AACACCAGTCCAGAGTTCTGTTTCTGGGAGCCTGGTCCCTGGCATAACAGCCTCCCTCCGT
GGGACAGGCCACCAGCCGACCCGTCCCAAGTTCAGCAGGGAAAAAATGCCTGTTTCCCA
GAAGTTGACTCTGGTAGCCCCCTCCAGGCGGTCCAAACGGAGATTCCAGTGGTGGGACCCA
GGGGAGTGGCAAAGTTGCTGACCTCGCCGTCCCTAAAGCCCTCTGCAGTTAGTAGTGTA
CATCGTCTACCTCCTTGTCAAAGGAGGCGAGTGGGGACTGTGCTGCTGGCCGGCTCCTC
TTTGATGGCTTTACCCTACAAATCCAGCAGCCCAAAGCTGTCTGGGGCCATGAGCTCGAA
CTTCTTGGGAAATTATAC

Sequence 1708

CACGCGTCCGGGAAGCGGTGCGCTCCGTCAACACGGGAGTGCGGGAATCCGCCGTTTGCG

TABLE 1
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CTGAGGCAATGGCGGCAGCTGCGCCGGTGGCCGCGGACGACGATGAGCGGCGGCGGCGGC
CGGGGGCTGCACTGGAGGACTCCCGGTCCCAGGAAGGGGCAAATGGTGAGGCCGAGTCAG
GTGAGCTCAGCCGGCTTCGGGCTGAGCTGGCAGGCGCCCTGGCAGAAATGGAAACCATGA
AGGCTGTGGCAGAGGTGAGCGAGAGCACGAAGGCCGAGGCTGTGGCTGCGGTGCAGCGGC
AGTGCCAAGAGGAGGTGGCCTCGCTGCAGGCCATCCTGAAAGACTCCATCAGCAGCTATG
AAGCCCAGATCACCGCCCTGAAGCAGGAGCGACAGCAGCAGCAGCAGGAGGACTGTGAGGAG
AAGGAGCGGGAGCTGGGCGCCTGAAGCAGCTGCTGTCCCGGGCCTACCCCTGGA

Sequence 1709

CACGCGTCCGCGGACGCGTGGGTCCGCGGCGGCGTCCGGGGTCTCCAGTAGGGCTGACGC
TCCGGTGCTCGACAATCCCCGCGCTCGGCTGGCAACGGGCGTCCCTCCACTCCCCGAGT
CCCCGGCAGCCGCGCCACCCAGCGCGCCCGATCTGGCCCCCTGCCCCGCAAGATGG
CTGCCGTACGCCGGGCCCCGAGTTATTGCCGCTGCCTGGTGCGTTCTCCGACCGAGAAC
TCTGCTAAGCTCCGCTGCAGAGACAGGCAGGAGTAGACACCCGGACACCCAGCACCCCTC
CTTCGGGGGGCGGTGCAGAGGGGGCAGGAGAGCCCTCGAGCGCAGCAGGCCGCCCGC
CAGCATGGCAGAAGCTGAGGAAGATTGTCATTCTGATACTGTCAGAGCAGATGATGATGA
AGAAAATGAA

Sequence 1710

ACGCGTCCGGCGAGTGGCCTTCCCGGTTGGCGCGCGCCCGGGGCGGCGGCGCTGGAGGAG
CTCGAGACGGAGCCTAGTTATGTCTGGGAGGCGAACGCGGTCCGGAGGAGCCGCTCAGCG
CTCCGGGCCAAGGGCCCCATCTCCTACTAAGCCTCTGCGGAGGTCCAGCGGAAATCAGG
CTCTGAAGTCCCGAGCATCCTCCCTGAAATCTGGCCGAAGACACCCAGTGCGGCTGCAGT
CAGAAAGCCCATCGTCTTAAGAGGATCGTGGCCCATGCTGTAGAGGTCCAGCTGTCCA
ATCACCTCGCAGGAGCCCTAGGATTTCTTTTTCTTGGAGAAAGAAAACGAGCCCCCTGG
CAGGGAGCTTACTAAGGAGGACCTTTTCAAGACACACAGCGTCCCTGCCACCCCCACAG
CACTCCTGTGCCGAACCCTGAGGCCGAGTCCAGCTCCAAGGAAGGAGAGCTGGACGCCAG
AGACTTGAAATGTCTAAGAAAGTCAGGCGTTCTACAGCCGGCTGGAG

Sequence 1711

CNCGCGTCCGAAGGCACAGGCGTCTTGCTCTGTTGAAGCAAGTCAGTATCCGAGAAAACT
GCTGTTCCCTTTGTTGTGATGAGGTAGCAGACACACAATTGAAGCCATGTGGACACAGTG
ACCTGTGCATGGATTGTGCCTTGAGCTGGAGACCTGCCATTGTGTCTGTAAGAAATAG
TATCTAGAATCAGACAGATTTCTCATATTTCTGACACATGTGAAGAGGCATCGTGGACT
TTTTTCTACTCAATTCAGCCAATGTTGAAAAGAAAAAGAAAAAAACTCTAATCAGT
TGTACACACATTGAACTTATAGCCATGGCCAGATTTTATGCTAAAAATGGTAGTTTGTG
AAAGACAAAATTCTCTAGAATCTAATCCAATTGCCAGCCCTGAGAAAATCCCTTTTAA
GGCCAAGGGAAAGCTGAATGCTAGCAGCCAGGCCTGTGGTACTTCCATGAGAAACCATAG
CAGGACAATGCCCTC

Sequence 1712

CCACCGTCCGGGCGGCCAGAGGTGCGAGAAGGCCGAGGAGAAGGCCAAGGAGATTGCGAA
GATGGCAGAGATGCTGGTGGAGCTGGTCCGGCGGATAGAGAAGAGCGAGTCGTCTGAGC
GCGGTCCGGCGGTTTCCAGCCAATGATTCTGGTCAACTGGTGGAGATTGGCTGACACCCT
GGAGAAGCCGAAACCAGAGAGCCTTTTGTCTTTCTCTTTTCTCTGTCTATGCTCTGTCTC
ACTTAACACTACGTTTTCTGCTATGGTCTGTGGTTGATGACCTCAATATGAGTTTCGATT
GTTAACCGTGTTTTGTTTGGGAAGTAATTTTGTGTTGAAAATGCTCTCACATACAGGAAT
TAGGGCCTAGATTGTAAGCTCTTGACAGCAGTCACATTTGTTCCCGGGCTTTGGTGGTTAT
TTTCTAAATTTTGAGGTGCCTTTGCTATTTCTTGTTGACCTGATAGCTTCCCCTG

Sequence 1713

GCGTCCGAGCCTCTGGGGGTGGATCCTGAAAGGTGGTCCAGCCGCCTGGCCCTGCGTGGG
ACCCTCCACCTGGCAGCAGGGTCTCGCTCTGTACACAGGCTGGAGTGCAGTGGTGTGAT
CTTGCTCATCGTAACCTCCACCTCCCGGGTTCAAGTGATTCTCATGCCTCAGCCTCCCG
AGTAGCTGGGATTACAGGTGGTGAAGTTCCTCAAGAGTGACTCCGTCCGAGGAAATGACTCC
CCAGTCGCTGCTGCAGACGACACTGTTCTGCTGAGTCTGCTCTTCTGGTCCAAGGTGC

TABLE 1
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CCACGGCAGGGGCCACAGGGAAGACTTTCGCTTCTGCAGCCAGCGGAACCAGACACACAG
GAGCAGCCTCCACTACAAACCCACACCAGACCTGCGCATCTNCATCGAGAACTCCGAAGA
GGCCCTCACAGTCCATGCCCTTTTCCCTGCAGCCACCCTGCTTCCCGATCCTTCCCTG

Sequence 1714

GTCGCCACGCGTCCGCAGAAGATTGACAAATCTGAGGGCCGCTTCCATGTCCAGAACCTT
AGCCAGGTGGAGCAGGATGGGCGGACGGGGCATGGACTCCGCAGATCTTCCAAGTTCTGC
TTGAAGGAGCACAAAGCCCTCAAGACGTTAGGCATCATCATGGGCACTTTCACCCCTCTGC
TGGCTGCCCTTCTTCATCGTTAACATTGTGCATGTGATCCAGGATAACCTCATCCGTAAG
GAAGTTTACATCCTCCTAAATTGGATAGGCTATGTCAATTCTGGTTTCAATCCCTTATC
TACTGCCGGAGCCAGATTTCCAGGATTGCCCTCCAGGAGCTTCTGTGCCTGCGCAGGTCT
TCTTTGAAGGCCTATGGCAATGGCTACTCCAGCAACGGCAACACAGGGGAGCAGAGTGGA
TATCAGTGGAACAGGAGAAAGAAAATAAAC

Sequence 1715

CCCCCGTCCGCTTTTGTNATCTAAAGGCTTNAGTCCCATTTTTTTATACGTTGTATTTT
AAAAACGTTTGAAAGGAGTCTTACACCTGTATCATGAAACTGAATCCTTTTGAAATACC
ACTATATGAAGAGAGAGATGAAATTTAGTGAACAGAATTGGAAAAGGTGCTCATAATTC
ACTATGCAAACCTTACCCAGTCTCTAAAAAAGTAATTTAGATTTAAAGTTCTTTGATGTA
TTTGATTTTCTAAATCTTTATGGTTATGATTTGGAATAAAATGTGCCTAATCCTGTGTTA
CATTCTGTTCTTAAATCTGAATGCCTTCTCATTTAATTCTGAGGAAATATCACACAAGTG
TCTTCATTGACCTTGAAGAAATGTATATACAGTTGCCCTTATAAAACAACATAAAATTTAGA
CCATAACTTTTATAGAGAAAGGGTTTTGTCAAATGTTTTCTGAAAATCTGAGTAATTCAA
AGCATGCCTCTGCCCTTTAATA

Sequence 1716

NGTCGCCACGCGTCCGGCGCTCTCGGCCGCCGCCGCTCTGCGTGGGCCGCGCGGGAGGG
CCTCGGGGACTGACTGACAGAGTTTCACTCCTGTTACCCAGGCTGGAGGACAATGATGT
GATCTCGGGTCAACCAACCTCCGCCTCCCGGATTCAAGCGATTCTCATGCCTCAGCCTC
CCGAGTAGCTCAGATTACAGGCATGTGCCACCACGCCCGGCTAATTTTGTATTTTCAGTC
GAGACGGGGTTTCCCATGTTGGTCAGGCTAGTCTTGAATTCGACCTCAGGTGATCTG
TTCGCCTCGGCCTCCCAAAGTGCTGGGATTACAAGGCGTGAACCACTGCACCCGGCGAGG
CATTTTTTACTGTCTACAGAACTTATTGTAATTCATTTTTCTCACTCCAAGTAGTAAG
AATTATACCAAATTGAAAAGATATGAATGAGTATCCTAAAAAAGAAAAAGGGA

Sequence 1717

CCGAGGCNCTGATAAGCCNTGGTAACGGGAAACACAGCTCTAACCTCACCTCATTCTCCA
GGTTACAAAGGCCATGTGCCCTTTGAATCTGGCAGAGAAAGTTTCTCGTTGTAAGTAT
TTGCATCTACTTCAAGCCAGATTCTTCTGCCTCTTTCTCCTTTCCAGACCCCTACTCTGT
GCAGTGCTGACCACAGCTAGAGCCACCGCCCCATTGCTCAACCAGTATTTATTTCCCTAA
ACGACCCCTTCTCATATTCCCTTCCCTCCACCTCTCCTTACCAAGCACCCAAAAGAGGAT
TTAGAACTAGCAGGGTGGACATCATTCTGGTTGTTTCTACTTTTCTCTGCCTAGCACAAA
ATTGGGAGAAAAGTGGAGCCTCCATCCGCAGTCACACGTGTACAGATCTGGGNGATTTGG
ATGTAGGCTTTTCTAACTTCTCTCTCAGAAGCTTCTACA

Sequence 1718

CGGACGCGTGGGTGCCGCCGCCGCCGTCGCTGTCGTAGTCGCCGCCGCCGCTGCCGGAGA
AAGAGCAGGAGCGGGGAAGCCCCAGAGTGAAATCTAGCATCCTGCCGGCTGGTCTGCCCG
CCCTCCTTCTTTTCCCCCGGCCCNCTCCCTCCCNCCGCAGGTGCCATCCGTCGCC
ATNCGCCTCTCTACCCCTCNCATCCCCAGGTGAGGGGGGTGAGTTTCAAGGAAGCGGNNACCC
CNAGGAACCCANAGGGTCAACATTTGCAGCGCAACATGGCAGGAGCTGGAGGAGGAAT
GATATTCAGTGGCGTTTTTTTTCAGGTGAAAGGAGCAGTATGATGATGATGTAGCAGNAAG
CANGATATNATTTCTACAGTANAATTTAATCNTTTCTGGGAGAAATTCTAGCAACANGAA
GATAAAAGGTGGGTAGAGGTTGTATTCTTCAACAGGGAGCAGGGAGAAC

Sequence 1719

TABLE 1
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TCCGGCCGGCCAGCGTCATCACCATCGTCAAGTCCACCCCGGGCTCGGGGTCTGGCCCCG
CCCACGGNCCGGACCCCGNCCACGGCCCGGCACNGCNGCTCCTAGTGCCCCGCCCGCCA
TGCCTCANCCACGCCCCACCGGCCATAGTNCCCTCCCCCAAAGNGCNCTGAGGCGCATG
NCTTCNTGNGACNCAANGNTCCCATTNTCTATTGCAGGCAACATGGCCATTCCCCGAAAC
TAAAAAGCAGTTGGGGNNGGNGAAAGTACNANGTGGAAAACCCAGNNATCACCGGNANTG
GNNGGAAAAACAANGGCCNGNAGGGACACATTTCCAACTTTAAGCTGGGCNAGTGNNTGGG
GAACCAAAAAACCTGGGGNNGNCCCNTCANTGGCANGGCCNTGAGNNCNCAGCNCATGN
GCATTTNCAGGGNNGAACCAGNNGGACAAGGGGGACCTCAANAAAAATGNTGGNTGGGG
ANGGGCCCANTCNCCTGGGCNNGGGGAAGAACCCGNATTCTACNAGCAAAAGGGGGANGGG
GGGGACNCAGCAAAGGCAATCANGGGAAGAAGGAAGATAAGGGTCNACCANCGGGAATNG
GCAAAGAAANGGGGAA

Sequence 1720

CTGANGCTCGTTTTCTGTGAAATTAAGCTTCAGAGGGAAGCCCGNGAAACACAGGAGAGCG
AGCGCAAGCCCCACCATAACAAGCACATCAAGGTGAATAAGCCTTACGGGAAAGTCCAGA
TCTACACAGCGGATATTTTCAGAANTCCCTNAGTGCAACTGCAAGCCCACAGATGAGAATC
CTTGTTGGCTTTGATTGCGAGTGTCTGAACAGGATGCTGATGTTTGAGTGCCACCCCGANG
TGTGTCCCGCGGGCGAGTTCTGCCAGAACCAGTGCTTACCAAGCGCCAGTNCCCAGAGA
CCAAGATCATCAAGACAGATGGCAAAGGGTGGGGC

Sequence 1721

CATGGCTTCTGCGAGAAAAGTGATTTAGGCAGACGGAGGTTTTTCTCAATCAGAGGCTT
TCAGTAACTCTGCTGATGCACAGAGAAGAGACTTCCTCAGCCTGCAGGCTACAAGAGCCA
ACTGTTAGTGCAAAAAAGGACTTTAATACAAATTTCTTATTCCAGAAATTTTGTCCAGG
TCTGGACAAGCTGAGAAATTTATCATTGTTTTTCGAGTTTTTAAGATACCCACTTTTTCT
GAGAGGTATGGGTGTGTGTGCAAGGCACACACATACAGTCTTTCTGTACATGCATGCATA
TTTATGCATGTACAGGGAAGTATCCAGACACCAAATTTTAAATAAATGAATTCGCCAAA
GGGGAGTCTTGACCTGAATTAAGGCTGTTGTTTATAGGGAAGCCAGATATAATTGATGNT
GAAAAANAATAATTTTTATACTTAATCACCGGCAGNTANCGGGGGCANGGGGGAAAAA
GTACAGANGGGGTGTATTTTTTGTTTTTTCT

Sequence 1722

TCGCCACGCTCCGCTCTTAACACAGAGTCTGCAGCCCCTAACTGACACCCTGTCCCTTCC
TCCTAGGAAGTGCTGGACTCCCTGGTCAGCAATGTCAACATTGAGCTGCTCAATGCCCTC
CGCTACCATATGGTGGGCAGGCGAGTCCTGACTGATGAGCTGAAACACGGCATGACCCTC
ACCTCTATGTACCAGAATTC AACATCCAGATCCACCACTATCCTAATGGGATTGTAAT
GTGAAGTGTGCCCGGCTGCTGAAAGCCGACCACCATGCAACCAA

Sequence 1723

ATCCGGTTCGCCCCNCGTCCGGGCGGCGGAGGCGGAGGCAGCGGCGGCGGGATGGCGGAC
GCCAACAAGGCCGAGGTGCCCGGGGCCACTGGTGGCGACAGCCCGCACCTGCAGCCCGCA
GAGCCGCGCGGGCGAGCCGCGGCGAGAGCCGACCCCGCGGAGGCGGAGAAGCAGCAGCCG
CAGCACAGCAGCAGCTCCAATGGCGTTAAATGGAGAATGATGAATCAGCAAAAGAAGAG
AAATCTGACTTAAAGGAAAAATCTACAGGAAGTAAGAAGGCCAATAGATTTTCATCCTTAT
TCAAAAGACAAGAAT

Sequence 1724

GTCGCCNCGCGTCCGTGCTTTTTTCGACATACTGGTTTTTCTTTCTGTTTTCTTCTCT
TTCTTCTATTTCTTGTGGATATTATGGCTAATAACACAACAAGTTTAGGGAGTCCATGGC
CAGAAAATTTTGGGAGGACCTTATCATGTCTTCACTGTATCCATGGCAATCGGGCTGG
TACTTGGAGGATTTATTTGGGCTGTGTTTCAATTTGTCTGTCTCGAAGAAGAAGAGCCAGTG
CTCCCATCTCACAGTGGAGTTCAAGCAGGAGATCTAGGTCTTCTTACACCCACGGCCTCA
ACAGAACTGGATTTTACCGCCACAGTGGCTGTGAACGTGGAAGCAACCTCAGCCTGGCCA
GTCTCACCTTCCAGCGACAAGCTTCCCTGGAACAAGCAAATTCCTTTCCAAGAAAATCAA
GTTTCAGAGCTTCTACTTTCCATCCC

Sequence 1725

TABLE 1
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AATNTGCCAGCCTTTATTGAGCTTTACAACCTGATAGTTGGCAGTTAATTCAC
AGTTACAGATAATGCTTTTATTACATAAATATACCAAGTAGTACCCTCTTATTGTATTC
ACTTCATCTATTTTCTTAGAATACTTGCAATTTCTAATGACCCCTTCCCTTCCCTCCTG
CTGCCCTGTCCACCCTCTTCCCCTTCTAACATCCTTAGAGGGATGAAATCTCAGCATAT
GTTGCAGGACACCAAAAGGAAGAAAACAATCAAGCAAATAAAATAAACAGTCAAACAAAC
CAGGAGTTTAAAACAACAACCCCAACACAGAAGCCTTGGCAAAGAGGAATGAGTGATCA
GCAAGTGAACACACTCTATGTCAACTCTCCTTTTTATCCAGCTGAGATTTTATGGTAACC
TTTAATTTAA

Sequence 1726

CCNCGCGTCCGGAGCCGAGAGTGTGTGGAGCAGTTACAGCTGGAAGACCGGGTCCTCTGC
CTCCACAGTAGATGGCTGAATCCTCTATGCGGGACTGGCAAATGGCACTGTGGTCACCTT
CAACATAAAGAAACAACAACGACTTGAGATCTTTGAATGCCATGGCCCTCGGGCAGTCAG
CTGTCTTGCTACAGCTCAGGAAGGTGCCCCGAAACTGCTGGTCTGCGGGTCTTATGACTG
CACAATTAGTGTACGCGATGCCCGGAATGGACTGCTCCTCAGAACTCTGGAGGGCCATAG
CAAAACCATTCTTTGCATGAAGGTGGTGAATGATCTCGTGTTCACTGGCTCCAGTGATCA
GTCAGTCCATGCTCACAACATTCACACTGGTGAGCTCGTGCGGATCTATAAAGGTCACAA
TCATGCAGTGACTGGTGGTGAATATCCTAGGAAAAGTGATGGTGACTGCTTGCCTGG

Sequence 1727

CNCGCGTCCGGATNAATATTTTCATCCCTGAGGTTAACAATTACCATCAAAATGTTTTGT
GGAGACTATGTGCAAGGAACCATCTTCCCAGCTCCCAATTTCAATCCATAATGGATGCC
CAAATGCTAGGAGGAGCACTCCAAGGATTTGACTGTGACAAAGACATGCTGATCAACATT
CTGACTCAGCGCTGCAATGCACAAAGGATGATGATTGCAGAGGCATACCAGAGCATGTAT
GGCCGGGACCTGATTGGGGATATGAGGGAGCAGCTTTCGGATCACTTCAAAGATGTGATG
GCTGGCCTCATGTACCCACCACCACTGTATGATGCTCATGAGCTCTGGCATGCCATGAAG
GGAGTAGGCACTGATGAGAATTGCCTCATTGAAATACTAGCTTCAAGAACAAATGGAGAA
ATTTTCCAG

Sequence 1728

TCGACCACGCTCCGATCCTGGATCTGGAGAGAGAGCTCTCCAAGCAAATCAACGTGTGC
CTCTGAGCCAGATGACGGGGTGGGACCCCGTTAGTAAGGACCGGGCGCCAGTGGCTAA
GGCGGTGCCCTGGTGACCAAGGAGAGCCAGACCTGTTGCTCAGGCCGAGCTCCTGGTTGC
CAGCGAGTTACCACGGGACCAGTCGCGTGTATGGCTGAGACTCATTCCAGTTTTCCAGGG
CCCGGTATTTGGACACTAGTTGCCAAGTCTGGGGCCTGGGGATTTTAGGGACCAGCGGTT
GTGACCATCTTTCTGAGCACCAAGGGCTTCCCCTTTTGTGCCAAAAGGTAGTTCTCG
CGCTTGCTAGGCTGGCCTCTCTTGCCTCCCCTTGGCCGGGGC

Sequence 1729

TCCGAAACACCTGTCATTTTACACAAATGCGTTTTGAATGTCTGAAAGACAGCTCCTGCC
CTTAATTTAGATGTAACCATTAGTTTCAAACCTGATAAAATCTATCAACAT
TTTATCATGAACTAGAGCAGATGTCTGTTATTTGATGTCTATGTTATTTGAGTTTACTGT
TTAATAAGTGAATTCATATCAATTAATCCTGCTAACAAATTTGACACTTAAGGTGATTCT
GAAAATCCTTTAACTTAAAGTAGATGGAATCTTAAGTATGGGGCCTTTTGTGTCCGTA
AAGAAAACTGCATGCAACAAAATATAGCAGGTCCTCACTTGTGAGATTCATGGAAATT
GTGACTTTAAATGAAATGACATGGCTGGGCATGGTGGCTCACACCTGTAATCAGCACTTT
GGGAGGCCACGGCGGGTGGATCACGAGGTCAGGAGTTCAAGACCAGCCTGGCCAACATGG
T

Sequence 1730

CTGNAGTTAAATTGGTCCAGAAACAGTTATGACCCTCTTTATACTGCCAAGAAATACGC
AGTCCCAGCCTTGAAGCACACTGTGTAGAATTTCTACCAAACATCTTAGGGCAGATAA
TGCCCTTATGTTACTTACTCAGGCTCGATTATTTGATGAACCTCAGCTTGCTAGTCTTTG
TCTAGATACAATAGACAAAAGCACAAATGGATGCAATAAGTGACAGAAGGGTTTACTGATAT
TGATATAGATACACTCTGTGCAGTTTTAGAGAGAGACACACTCAGTATTCGAGAAAGTCG
ACTTTTTGGAGCTGTTGTACGCTGGGCAGAAGCAGAATGTCAGAGACAACAATTACCTGT

TABLE 1
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GACTTTTGGGAATAAACAAAAAGTTCTAGGAAAAGCACTTTCCTTAATCCCGGTTCCCAC
TGATGACAATTGAGG

Sequence 1731

ACCCCGCGTCCGAGCAGCCTCCAGTTGCCCTACTTAGTGGCTTGCCCTCTGCCTGCCTC
AGCTGCTGCCTGACCGGCTGGGGGAGGCACTGGCGGGAGGCCTCGGGCTCCCCTGGAAGG
GCGCTGGGCTGGCGGGTCAGCTGGTGGTTCTTAGGTTTCCTTCTGTTTGTTAAAAGGGAC
AATGTGGCCACTTCTCTGTGGAAAGGGAGTTGGTTGGGGGGTTGAGATGGCCCGTGTTC
TAACTCAGTTTCCTGTTTTGCACGATGTA AAAACCCTGTCTTTTTGCACGATACAGCCAA
AAGTATTGGCTGATTTCTTGCTGAGTGCCCTCTTAGTTGGTGTGTGAGGTCTTGGTGGGC
TCAGGCCAGCTGTTTGCGAGTGTGGAACTCATAGGTTCTGTCTTTGTCTCTTCTTTCA
CCTATTCTGGTAGCAGCATAAAGGTTAGGCAATCACTGGGACCC

Sequence 1732

GCAAATCATACATTGCATTCCCCAAAGCATCTGAACGTA CTCTAGAAAACAAACCAACC
AAAAGGGAAAATATGCATGCTTTTTGTAATTAAGTGGTCTTTGAAAATCTTTTTTAAGG
GAGAAAAATCTCAACCAAAGTTATGCTCATCCAGACAAGCTGACCTTTGAGTTAATTTCA
GCACAACTCATTCTTCAGTGCTCATGACTGAAAACAAAAACAAAAAAGAAAGCATCT
TCNCAATGAAGCTTCCANATAGCACCGTTTTGCTAAAAGATACATTCTCATTGTTTTCCA
ACAGNGATGGCTTCCACATAANGGTTAAACAACTGGGNGCTTGAAATAATTTNTNACN
GGTTACTTNTTCGCATTTTTTNGAACNAAGGAAANGGGATTCCCTTTTTTTAGGGGGGAA
GAATTGNGGNCAAGTTTAAAAAAAAAAAAAAAAAAAAAAAAA

Sequence 1733

CGCGTCCGAATTTAGGAAGACCCCGGCGACCTGTTCTCACCCCGCTTCGCCCTCACAC
TTTCGGGATGTCTGCGATTCTGCTGAGGAGAGCGACCAGCTGCTGATCCGACCCCTTGG
AGCTGGGCAAGAAGTAGGAAGATCATGTATTCTCGAGTTCAAAGGAAGAAAAATAAT
GCTCGACTGTGGGATCCACCCTGGCCTAGAAGGAATGGATGCTCTTCCTTATATTGATT
AATTGGACCCACCTTGGAATTGNACCTCCNANTAANTNANNNCATTTTCATTTTGGAANC
NTGGGGGGGCGNTNNCCCNNGGTTTTTCNNAAAAANNCCCTTNAANGNNAAAAAATTT
TTTTNTTTTTNTCCANAAAAAATTTTTTTTNA AAAANNCCCNCTNNTNTNAGGGGNTNT
TNA AAAAATTNCCCCAAAAAANNNNCCCCCTTTNTNTNTTTTTNA AAAAAA AAAAAA
AAAANATNGNCCCNNAATTTTTTTTTTATTTTTTNANNA AANAANNTNTTTTTTN
AAAAANTNTATNTTTTTTTT CNNTNANNNNNGTGNNNNCCCNNTTTTTTTTTTT

Sequence 1734

CCACGCGTCCGCTCCCGCCAGGCGCTTCTCGGACGCTTGCCAGCGGGCCGCCGACC
CCCTGCACCATGGACCCGCTCGCCCCCTGGGGCTGTCGATTCTGCTGCTTTTCTGACG
GAGGCTGCACTGGGCGATGCTGCTCAGGAGCCAACAGGAAATAACGCGGAGATCTGTCTC
CTGCCCTAGACTACGGACCCTGCCGGGCCCTACTTCTCCGTTACTACTACGACAGGTAC
ACGCAGAGCTGCCGCCAGTTCTGTACGGGGGCTGCGAGGGCAACGCCAACAATTTTAC
ACCTTGGAAGGTTTGCNACNATTCTTTGTTTGGANGANTAAAAAAGGTTCCCAAAATT
TTCCCNCTTTNAAAAGANNNTNGNGACCNNNCACTNNGGGGGGGGCCCCAAAAAATTT
TTTTTTNTTAANNCCCCCGGGGNNGNAAAAANTTTTTTTTGGGGGGGNNCCCCCCC
NNGGGNNAAAAANNNTTTTANAAAAAATTTTTTTTTNTTTTTTCCCCAAAAAATTTT
T

Sequence 1735

GCGTCCGAAAATACAATACACGGA CTCTTCGAGGCCCTGTAATTGGAATGAGTCCACTT
TAAATCCTTTAACGAGGATCCATTGGAGGGCACTTCCAGAATACCTCCTCCCCAGCGCC
CGCTGCCAGCCCCACACCAGGTGTGAGAACCAAGTCTGGTGGAGGCAGCTCCAGGCACT
GCCAGTCCGACACAACCTGCAAAAATCCATTAGAGCCACTGCCCCAGAGATG

Sequence 1736

CGAACCTCCTGGTTCCAAGTGGGAGACATGGTGTCTCGGAGCTAGCGGCGCGCCTCAAC
TGCGCCGAGTACAAGAACTGGGTGAAGGCGGGCACTGCCTGCTACTGCTTGCGCAGCTG
NCTGCAGGGTTTCGTGNCNCGCNAGGTGCTCTCTTTCCACCCGCGGCCTACTCGCCGCA

TABLE 1
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GCCCCCGGC

Sequence 1737

ATCCTTTTGCCTAAAGATGTAACAAAACCTCAAGACAGAAGGAATCAGGGAATATGTGCT
NTTGTGNGCATCTTGTTTACATTTNNGGATCAANTGATGGCAAAGAAGTAATGAGACCA
CTNNAAATTGTTTTNCANTTGNNTTTAAANACCAGGGTTCTCATTTTCTTTGATTTTG
NAAGTTTTAACAATTGACCTTCTTAAGNGACATTCTCTTCAAAAAAGANANGTAAANCA
GGNGAAATGAAGGGTGGNTGGGGAAA

Sequence 1738

CCGGCTCATTCCCTGAGGCCGGCCCGCTCCCGTCAGGGCGCCGCGCGGGGTTAGCGCGG
GGTCAGCGGAGGTGAGCGGGGGTCAAGCAGCAGCGGCTCCGAGGGCGCGGCGGACGCAGGA
TGTACACGCTGCTGTCGGGCTTGACAAGTACATGTTTCAGAAGGACGAGTACTGCATCC
TGATCCTGGGCCTGGACAATGCTGGGAAGACGACCTTCTGGAGCAGTCGAAAACCCGAT
TT

Sequence 1739

GTCCGNCCACGCGTCCGATTTCTTGCTGCTTTGAAAAAGTTTCAGCTTGCTGTCTCTT
TAGTGTTTTAAAGAAGTGTTATACAAAGCATTGTTTGCAAATATAGGGAGGATAATGG
GAGTCCCACTTTAANTTNGGGAANTCNTTGGNGANCTTNTTATCCAAGGTTTANTCAA
GCCTTCNTTTTCCAACTTTTAAAAAATTTTTGTTAAAAAGCCACCCTTTGCTTTANGA
AAAAATTTTTAAAAATATTTTANTGTTCTTGCNACCAATTTGTTCTTAAAAAATAATA
AAAACTTGNTGGCAAATTCNTTTGGTCNNTTTAAAAAATAAAAAA

Sequence 1740

ACGCGTCCGCAGCCATCTTGGGATCTGGGCAAGTGAGCGAGCTCCTTCTCACCGGGCTG
ACTAGCCTCTCCTTTCCCTGTCCCCCTCCATCGCTGCTCTGCAGGAAGCCAGCCCCCAGG
GCCAGTCCCGGAGGGGCTGATCCGCATCTACAGCATGAGGTTCTGCCCTATTCTCACAG
GACCCGCTCGTCCCTCAAGGCCAAAGACATCAGACATGAAGTGGTCAACATTAACCTGAG
AAACAAGCCTGAATGGTACTATACAAAGCACCTTTTGGCCACATTCCTGTCTGGAGAC
CAGCCAATGTCAACTGATCTATGAATCTGTTATTGCTTGTGAGTACCTGGATGATGCTTA
TCCAGGAAGGAAGCTGTTTCCATATGACCCCTATGAACGAGCTCGCCAAAAGATGTTATT
GGAGCT

Sequence 1741

CANCGCCCCGGCCCGNTCAAGCAGCNTAATAAAGCTCATANAGGCGGACNNGGCATCNGGG
TCTNNGGATCTGCACAGCGGGACTGGCATAGGGCCGTCTGGCACTGAAAACCCTAANCAA
GAAGGTGTGAAAAGAACTTNAGCNGANNCGACCNAGGCATCNNOGCCAGCCAGCTCCG
AAAGCAGAAGANGGAGGCGGTTCTGGCATGAGAAAGANACAGCTGGGCTGGCNAGGATAG
GCCCCCTCCTTCATCAAGGTACTGGTGGTGGCCCTGCACAGNANAATTNTNCCTGCCAGAG
GCCATGCANCCTGCTTCAAGATAGGGACACTGGAACAGATACACTTGAATGAATTGGGGA
AACACCCCAAGAACTTTT

Sequence 1742

CACGCGTCCGTTTTTTNCAAGGGTCTATTGTTTCGATTAGTTTCCTTGCAGGAGGTAGAA
GGTTTCTCCATCCGAGTAATTCATAGAGTGTTTGGCTTGNCTACCTTCTCCTGACTG
AAGTCACCTGATACTTTTTGTTTTTCAAGAAGGAAGAGAGAACCCTGTTGCCTCAGTTA
CTAGCAATGATACAATTCTCAAATCTGGTCTTTTTTTGTTTCTTTGAAATAGTTTCTCC
ATGTTGTGTGACACAGCAGCCCCCTGTCTTATCATAGTTGTCTTCCCTCCACCACCTGTAC
CAGAGATGTTGGATATGTTGGAGGTGAAGGTGTGCAAGGTTTTTAACCTAAGTTCTAAT
TAAAGGATTCTGCAGGAAAGAACATGGGTTTACAAAAGAGAAGCTTTTGTATTATTAGTA
ATTTTTTTCTTTGATGAATTTATGTGCTTAGTTTGGAGAATCGAGAGTTGGCTGGGAAA
AGATTCTGAGGAGTTAAGGGACTCTGGTGCTGTTTGGGAA

Sequence 1743

GTGATTAGAAGTAAGCGNTGATGAGGCTGAAGAAAAGGAAGACAAAACCTGAGTACTTGGA
GGAACGAAGAGTAATGGGATATCCAATAAACTGAGAATGTTTCTTACAATCTCCTTTAT
TCTTCGTTCCCTCAAGTACTCAGTTTGGTCTTCTTTCAGGTGTAGGAACGTGATAAAGAA

TABLE 1
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GTAAGCGATGATGAGGCTGAAGAAAAGGAAGACAAAGAAGAAGAAAAAAAAAAAAAAAAAAGG

Sequence 1744

CGATTTCTTTGTTGGACAACCCAGCTGGGGCTAGGAATGGTTCAGAAGGTTTAAGGCCGG
AANGGGNAATGAAGGGGCCCCGGCGCTAACCCCTCTAGGGACCTGTTTTGCTTCTGTTTAAA
CCAAATGGGCAGTCTGTCATTACACACACCCTGNGTCTTCATATGTGGCTCGCCAGTATA
ATGGAATGTGCTTACAAGGGCCAGCAGGAGTGCCTGGTCGAGACGGGAGCCCTGGGGCCA
ATGGCATTCCGGGTACACCTGGGATCCAGGTCGGGATGGATTCAAAGGAGAAAAGGGGG
AATGTCTGAGGGAAAGCTTTNAGGAGTCCTGGACACCCAACTACAAGCAGTGTTTCATGGA
GTTTCATTGAATTATGGCATANATCTTGGGAAAANTGCGGAGTGACATTTACAAANATGC
TTTTCAAATAGTTGCTNTAANANTTTTGTTCAG

Sequence 1745

GGACGCGTGGGTGGAAATGTAAACAAGAATAGACTGTTTCATTCTGATGGCTTTTAGTCT
ATACTAACATATTGTTTGTCTATGGCATCCGAGACTGAAAAGACCCATGCTTTACTGCAGA
CTTGTAGCACTGAATCTCTTATTTCCAGCCTTGGGTCTGGGGGCATTTTGCCTCGTAGCT
GACAGACTTCTTCAGTTTTCCACAATTCAGCAAAATGACTGGCTTCGTGCTCTCTCAGAT
AATGCAGTACATTGTGTAATTGGCATGTGGTCATGGGCGGTAGTCACTGGAATCAAGAAG
AAGACTGACTTTGGAGAAATCATTTTAGCTGGATTTTTAGCCTCTGTTATTGATGTAGAC
CACTTTTTTCTAGCTGGATCCATGTCTTTAAAGGCTGCTTTGACTCTCCCGCGAAGACCT
TTCCTTCACTGTTCTACTGTGATTCCCGTTGTGGTTCTGACCCTGAAATTTACTATGCAC
CTTTTCAAGCTCAAAGACTCATGGTGCTTTCTTCTGGGATGGTATTTATATCC

Sequence 1746

GTGAACAGGNTATTGACTATGGTAACTTATTTTATTGAAGTTTTCAACCGGAAAAATAGT
AAGTGGAATATGATACAACCTGTTATTTTCAGAACATATTTCTTAGGGCTATTTAAAATA
ACCTTTTTAAAGGGCAAAAACCTTTCAATTTGAGAGAACAATTCCTCTCTCTGTGGGAA
ATATTGGCTGAGATTTGTATAGAATAAGAGACATGTATGTAAACATATATTTATATTCAG
CATAAGTCTACTGCAATCATGTACACATCTTAGCAAGACGAGAGGATTTTGTTAGTCTT
TGTTTATGACTTCTACAGTTTCTGTATCTAGTGTTAAGTTGTAAGGAAAACTAAACAT
GCAATTTAAAGGTAACTTGATAACTATTTATGGAACATAAGCATACACCAATGGTTATT
TCTCACAGTTTTCATGCGCATTTGTTTATTGTTTACTTGGATTAGGCTCATTA AAAACCA
TAATGCTGGTCACAATTAGAATGCTAATATTTGGGGAAGCTATGCAGAAAATATTT

Sequence 1747

CNTGTGTGCCATGTATACCTAACGGGAGTCCAGAAAGACAGGAGAGAAAAAAGAAAGAA
ATAAAAAGAATATTTGAATTTAAATTTGCTTGAAAATGTCTCAAATTTGATGAAAAATAT
TACTCTGCACATTCAACCCATGAACATAAGTTGTATAAAATCAAAAAGTTTCACACCAA
GGCGTGTCTAGCCAACTGTCAAAAGCCAAAGACACAGAATCTTGAAAGCAGTGAGAGC
AAAGCAGACAAGGGATCCCAATAGGATTAACAGCAGATTTCTCATCAGAAGCCATGCAA
GCCAGAAGGCTATGGGAGACATACTCAAAATGCTGAAATAAAAGACTGTCAACAAACATT
TCCACATCCAGCAAAAATCAAAAACGAAGGAGAAATCTGTTGCATGTGAGCTGAATAGAA
TTTGATTCTGCTGTTGTTGGATTGAAGTATTCTTTAAATGTCAATTANATCAATTTG

Sequence 1748

CGATGGCAATACATGTACTCAGATAGTTACATCCCTATATAAAAAGTATGTTTACATTTA
AAAAATTAGTAGATAACTTCCTTTCTTTCAAGTGCACAATTTCAATTTGACTTGAGTCAA
CTTTTGTTTTGGAACAAATTAAGTAAGGGAGCTGCCCAATCCTGTCTGATATTTCTTGAG
GCTGCCCTCTATCATTTTATCTTTCCCATGGGCAGAGATGTTGTAAGTGGGATTCTTAAT
ATCACCATTCTTGGGACTGGTATACATAAGGCAGCCGTGAAACTGGAAAGTCATTTTGAT
GACTGATGTGATACATCCAGAGGTAAAATGCATTTAAACATATTAAAGTATTTGCCAAAG
ATACAATTTTCTTGCTGACATAAAAATCACACAAACAAGTCCCCCCCCAACCACTGT
CTCTCAAATAGCTTAAAAAAATGAAAAACATTTTAGGATTTTCAAGTTTTCTAGATTTT
AAAAAGATGTTCAAGCTATTAGAGGGAATGGTAAA

Sequence 1749

TABLE 1
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GCCCNCCCCGACCCTCCAGCTCATGGTGTCTGGGGCCTGCGGCTAGACTCTTGGAACATT
CTGGAACCTCTCTCCTTTCTGGCTGGGGCTCTGACCACAACTCCCCTCCAGGCTGCCCC
TGGGACATGGTGGTGATGTGGGTGCAGGAGCCAGTGTCTGTTGTCTGGGACTCGCAAGTGC
CCTCATCACAGCCACCCCCACCACGAGTGTCTCCCCAGTGCAGACTCAAGTTATGCTTGA
AATGAAAAAGTCTATCTGGTAGTGGGTAAACGTAGACCTGGCACTGTTCCACGCGGGCGC
CCCAAGCCTGCCACTCCTGTGTCCCTGCCTCCCTGGGCTCCCGAGATAGGCACCACTGTA
TCCTCCAGCTCCTTCCTTCCTTCCTCCCCAGGAACACGGAGGCCACCGAGGGGGCTGGGCCT
ATCAGGAGGACACAGGCTGCAGCCTGGCACCCACCCCTCCATCTTCACCCACATGGAAG
ACTTGTCTTCAAC

Sequence 1750

GCGTCCGGATTCTAAAAAATAAAAAAAAAAAAAAAAAAATTAATTGGGGTGCCTTTTTG
TTATAGTTTCTATTTTCTGTTTTGTAGGACAAGCTGCATTTTCTGTAATATAGGTCTGG
ACTAAAGGATACATAAAGAATGCACAAAATGTCAACATCAGCAGAGATGCCAGATCTAT
TTATCTCTAAGTATATTTGAAGTGATTGCTGNTTATATGTTGTCATTTTAAAAATTGTGTG
TCAGTAAAGCTACCTGTAAATTTTCAGTCCAAAAAATAAAGCTCTCAGGGAGACATGA
ATAAAATCAATGAACATTAGAAAATAAAATATAGATGCTTACCATTAACTACCAACTCT
TAATATCCTTAAATTATGTGATATATAAAGAGGACTGTTACTTTTTTACTTTCTTTTTT
TTTTTTTTGGCTTTGCTTTATTTATTTGGAGT

Sequence 1751

GGGCATGCTCATAGGCACAGCTGTTGGTCAGTATGCCAATAACATCACACTTTGGATCTT
TGCAGTCACTGCAGGCATGTTCTCTATGTAGCCTTGGTGGATATGCTTCCAGAAATGTT
GCATGGTGATGGTGACAATGAAGAACATGGCTTTTGTCTGTGGGGCAATTCATCCTTCA
GAATTTAGGATTGCTCTTTGGATTGTCATTATGCTGGTGATTGCCCTCTATGAAGATAA
AATTGTGTTTGACATCCAGTTTTGACCTTTCCAGTAATCACTGTTGATTACGAGAATGT
TACCATGCAGCTTTGCATCTGTTCTTGTACTGTATGCACATTGCTCAAAGGAAAGTCAG
TGGCTTGCCTACTTACAAGTTTCATAGATTTGAGCCTAACCCACAAGAGGCTGGTGCTTA
TACTGTTTTCCCTGCACGTAGGGGTCTTTTAAAAATATAAAGCTTGTGATAAAGAGAGG
A

Sequence 1752

CTGGTTTCAGCAGCCGCCACCCACCTCTGAGTCTGACCTGGAACCTGCCACAGATGGGCC
AGCCTCCGAGACCACTACCCTCAGCCCAGAGGCCACCACCTTTAATGACACCAGAATCCC
TGATGCAGCTGGTGGCACGGCCGGCGTGGGTACCATGCTTCTGTCTTTGGGATCATCAC
GGTGATAGGCCTGGCTGTGGCCTTGGTTTTGTACATCAGGAAGAAGAAGAGGCTGGAGAA
GCTACGCCACCAGCTCATGCCCATGTACAACTTCGACCCACGGAGGAACAAGATGAGTT
GGAGCAGGAGCTGCTGGAGCATGGGCGGGACGCCCTCTGTACAGGCTGCTACTTCTGT
GCAGGCCATGCAGGGCAAGACTACTCTGCCCTCCAGGGCCCACTCCAGAGACCCAGCCG
GCTTGGTGTTTACCCGATGTGGCCAATGCCATCCATGTGTGAGTGGCCTGGGACAAGC

Sequence 1753

GTCGCCCCGCGTCCGGTGCTCTCATGTCTCATCTCAGAGTTCCAGCTTATCAGAGGCATGTA
GCAGGGAGGCTTATTCAGCCATAACTGGGCTCTACCTCCAGCCTCCAGAAGTAATCCCC
AACCTGCATATCCTTGGGCAACCCGAAGAATGAAAGAAGAAGCTATAAAACCCCTTTGA
AAGCTTTCATGAAGCAGAGGAGGATGGGTCTGAACGACTTTATTCAGAAGATTGCCAATA
ACTCCTATGCATGCAAACACCCTGAAGTTCAGTCCATCTTGAAGATCTCCCAACCTCAGG
AGCCTGAGCTTATGAATGCCAACCTTCTCCTCCACCAAGTCCCTTCTCAGCAAATCAACC
TTGGCCCGTCGTCCAATCCTCATGCTAAACCATCTGACTTTCACCTTCTTGAAAGTGATCG
GAAAGGGCAGTTTTGGAAAGGTTCTTCTAGCAAGACACAAGGCA

Sequence 1754

TCGCCCCGCGTCCGACTGATCATAAACCATGCTGGTATTGCACCTTCTGGAACATATGGG
CTTGAGAAAACCCCCAGGATCACTTCTCCTTGGCTTCCTTATTTCTTGAGGCAGGTGCG
ACGTTCTACCTGCCCAAGACGTGTGATATCAGCTTCTCAGATCCAGACGACCTCCTCAAC
TTCAAGCTGGTCATCTTGTCTGATGAGGGCTTCTACAAGAGTGGGAAGTTTGTGTTTCAAG

TABLE 1
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TTTTAAGGTGGGCCAGGGTTACCCGCATGATCCCCCAAGGTGAAGTGTGAGACAATGGT
CTATCACCCCAACATTGACCTNGNGGGCAACCGTCTNGCCTCAACATCCTTCAGGAGAGG
ACTGGAAAGCCAGTCCTTACNATANACTCCATAAATTTTATTGGGCCTTGCGNGGTATTCT
TTTTTTNTTTGNGAGCNCCAAACCCCNNGANGGACCCCACTTGGAACCNAAGGGAGGGC
NCGCAAGAAGGGTTCCTTGGAAGAAACAAACCCGG

Sequence 1755

TCCGGCCCCGCCACCCGCCGCGCAGCTACCATGGATGATGATATCGCCGCGCTCGTNTGTC
GACAACGGCTCCGGCATGTGCANGGCCGGCTACGCGGGCGANGATGCCCCNCGGNCCGTT
TTCCTCATCGTGGGGCGCCCCANGCNCCAGNTGCGTGATGGTGGGCATGGGTGAGAAGG
ATTTCTATGTGGGCGACGAGGNCCAGAGCAATGAGAGGCATNCTNACCCTGNATTACCCC
ATCAGAGCACGGCATNTNTCACCAACTGGGACCGACATTGGAGAAAATCTGGCACCACAC
CTTTCTACAATGAGCTGCGTGTGGCTCCCGAGGAGCACCCCGTGCTGCTTGACCGAGGCC
CCCTGAACCCCAANGNCAACCCGNCGAGAANGATNACCCCAAGATNCATGTTTTGAGGA
CCCTTTTCAACACCCCAAGCCATGGTTACCGTTTGCCT

Sequence 1756

GCGNNGGGGCGGGGCTGGGGTCGGGGCCAGGGGTGCGCCGGNGGCGGNGGACGGGCGTN
CGGTGCCTGGGCTCTCTCCGCTCCCTGAGGCGCGCTGGGGAGTGAACCCTGATGATGG
GACCTGTGAATTGACGCGGGTGCCAAGTCGTTTTCTGTGTGGGTTGAGAGACAGGCTGNG
CAGCCCACTGTTGCATAGGACTAACTACTACAAATCATGCTGAGACCGAGCTATTTTTGC
TGCTTAGAGGCTTTGCAGCCTTGAGAGGAATTTTGTGTGAGGAGAATAAAAGGAGGTTG
TCCATNATTGACTTTAAGCAGCAATCAAGTAAACATTGAGCTCTTNAGCTCCGCCTTTC
TTGCTCTGAAAATTGAAAACCAANAAGTTTTGNTGTTATTGTGTGACCCACCTGAAT
TATAACCAAGATGAACATAACCAAGGTGGTCTNNGTGTGTTTTTCAGCAAAAC

Sequence 1757

GGATCTACCANGTGTCTNGAGCAGCAGGAGAGAGCCTTCACGCTGGGGCTAGCAGGACTT
CTCGGCGAGGGAGNNTTTAACTTTGGAGAACTNCTCATGCACCCTGTGCTGGAGTTCCTG
AGGAATACTGACCGGNAGTGGCTGNTTGACACCCTCTATGCCTTCAACAGTGGCAACGTT
GAGGCTGGTTCCAGACTCTGAAGACTGCCTGGGGCCAGCAGCCTGATTTTAGCANCTAAT
GAAAGCCCAGCCTTCTTGAGGAAACATTTAGTTTGTGTTGCTCATTGGNAGATGAC
TTTTACACCCGACCCTGGCCNATTCACAAGACANACTTNACTTTTTTTGAAGGAAAAATTG
CCAAAAAGTTGGCCTAAAAAATCNACAGGTTGAAATGGAAGGGTGNGAAGNCTTTTCT
GGGGTGGATTGGAAANGGGCACCCCTTTTTCGGNTNNGGGGGCCTGGGT

Sequence 1758

GAGCCGGCTGGCTCGAGTGGCCTTCGTCGTCCTTGGCGCCCTGGGAGAGTCGCTGACGG
GTGGACTGACGGACCGCCTGAGGACGGCCGGCCAGGGCGGTGAAAGCGCCAGCCCTATGG
CGCGGGTCGCAGTGAGGCGGAAGGCCGAGGACGGCCGGCGGCGGCCGCCCGCCCGGCGAT
GCGGGCCCCGCCCGTCGCCTNAGGTGCCATTTGATTGTACTTTAGTGGCACCGATGTAC
TCTGAGTGGAGGTCACTGCATTTGGTGATTGAGAATGATCAAGGCCATACCAAGTGTGCTG
CACAGCTATCAAAGAGCGTTNAGCAGAGAGGTGGCAAATGCTGTAAGTCCGGCCTCTTGG
GCAGGTGTTAAGTACCCCTTCAGTGGCTGGTAGTGAGAAATTTGTTAAAAACTGACAAAAG
AAGTA

Sequence 1759

GTCGACCACGCGTCCGGTCTCGGCGCCCGCTGCCCTCTACCCGCCCCACGCAGGATCCCC
GCCTGGTCACCGGGCAGTGTGATGCTTCCCGACTGCCGCGGGGACAGCGAGGCACACACA
GGGCTTGGGCCGCGCCGGAGGCCACACGGCCTGGCTGAGTTGCTCCTGGTCTCCCGCCTC
TCCCAGGCGACCCGGAGGTAGCATTTCAGGAGGCACGGGCCCCCCCAGGGGGATGGGC
ACAGCCAGCCAGATGGACGAGAAGACCAAGAAAGCAGAGGAAATGGCCCTGAGCCTCAC
CCGAGCAGTGGCGGGCGGGGATGAACAGGTGGAATGAAGTGTGCCATCTGGCTGGCAGA
GCAACGGGTGCCCTGAGTGTGCAACTGAAGCCTTGAGGTCTCCCCAACGCAGGACATCA
GATTCCTCATGGTGCAAAATGGCCATTCCAAGCTTCCATCCAGCCATCACATCACAGGAG
GAAGGGAAGA

TABLE 1
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Sequence 1760

CCGATGTCTACAAGCTCGTCAAAGACTAGGGTGCCCTCTGCGCCTCCTTAAGGATGCAGG
GTGAGCATCTCCTCTCCACACCTGCCTGGCACCCCTGGGGGGGTCCAGGATTGAGGATTC
ATCTACCTGCCAGGCCTCAGGCCCAGGACCCAGGAGGCCTCCCCACCTACCCCAGCACAC
ACACTCCCTGCCACTGTTCTGCGCTTTAATTGTGGGAGAAGAGAGGAGAGGAGGGCTCAG
CGGTGGGGCAGCCTGTCCGGGGCGCTGACCCACCATCACCTGCTCTGCCAGCCTCGCG
TGACCTCAGAGAGGTGGGGATAGGGGACACCTTCAGCCTCCAGCATGTGTGGCCACTTGT
ACCCCCACCCACCCTTGGGGGAGCATGATGGGCAGGTTGAGGGGCAGGATGGAGACCAAG
GGGAANTCAGTGAGCAGNAGGCCCTGGGGAAGTGCCGGTCGGGGTTGGAATTGAGGGAC
AGAGGGGCCCAACACTTTCTTGCCCCCTTTG

Sequence 1761

CCGCCAGGCCACCATCACCAACCGCCTCTGGCCGNCACCCCCATCTTNCACCTGTGCCCT
CACCACCACACTACACAGCACACCAGCCGCTGNAGGGCTCCCATGGGCTGAGTGGGGAAG
CAGCTTTNCCCTGGCCTCAGTTCCTCAAGCTAACTGCCACGTCCACCCACGCATACACACA
TGCCCTCCTGGACAAGGCTAACATNCCACTTAGCCAGCACCCCTGCACCTGCTGACGTCCC
CACNTCCCTTGTTGGTGGGGACATTGCTTCTCTGGGGCTTTTTGGAATTGGGGGGCGCC
CTTCTCTGCTCCTTTACTGGTTAGNCTCTGGCTACCNATAAGCANGAGGCCNTGGGAAG
GGGTTTCTCCCTGGGCCCTTAAAAAAGNGGGCCCCCAAAGC

Sequence 1762

AGTCGACCCCGCGTCCGGCAAGCGGGACCGGTAGGGGCCGAGCATGCGGCGGGCGGCGCT
CGGACTGTCCCATCCGCCCGTATTGAGGCGCTGGGAGCGGCGGGGCGACAGGAAAGCGA
TGGTGAAAGCGGGGGCCGTGAGGGGGGCAGNGCCGGGAGCCGGACCCGCGAGTAGCGGCAG
CAGCGGCGCCGCTCCAGAGTTCAGACCCAGGAAGCGGCCGGGAGGGCAGGAGCGAATC
GGGCCGCCCGCCGCATGGAGCTGAGAGTCGGGAACAGGTACCGGCTGGGCCGGAAGATCG
GCAGCGGCTCCTTCGGAGACATCTATCTCGGTACCGGACATTGCTGCAGGAGAAGAGGTT
GCCA

Sequence 1763

CGCGTCCGGGGTGATTTGAGCTCATCTTGTTGAGCAAGGGGAGTGAAACCACAGAACTG
TTAAATTGAACGTAAATAACTTTGAAAAACAGTTTGGACACTAGAACAAGGTCGCTTCTC
TTTTCTCTTCTCTCCCAACCTGTTAACCTAGTGTAGATAGTCAGCTGCTGTTGCAGGT
AGAAAAGCTCACCAATGCCACATTTGTTTATTCTGTTCAACCTGTTTTGACCTCCCAGGC
ATCTGAACAGGATGACATCATCTTATTATCTTACTTTACACATACGTGTATGTACACA
CACACACACAATAACAAGACATTTTTCTGTTTTAGAAAATATAGCCCTTGTGGATTAC
TGCTGTCTGAGCACTAGAAATTTCTAATGGAAAGAGGCCTCTGAATGGCTAAGGGAACAT
CTGGAAGGAAGGAAATGAGCCTNAAGGTTTTGGTGCTTGGTTTTGGTTCTTTTTCT
TTCNTGGTTCTTTTTTGGTTT

Sequence 1764

AGTCGACCCCGCGTCCGCGGACGCGTGGGCGGACGCGTGGGGGCCCTCCGGGAAGATGGC
GGCCGTGCAGGCGGCCGAGGTGAAAGTGATGGCAGCGAGCCGAACTGAGCAAGAAGTG
GTGGTAATCATTAGTTCCAGGGTGCTCTGCCATGTTGACGCAAGCTGCTGTAAGGCTTGT
TAGGGGGTCCCTGCGCAAAACCTCCTGGGCAGAGTGGGGTCACAGGGAAGTGCAGCTGGG
TCACTTGCTCCTTTCACAGCGCCTCACAAGGACAAGTCATTTTCTGATCAAAGAAGTGA
GCTGAAGAGACGCCTGAAAGCTGAGAAGAAAGTAGCAGAGAAGGAGGCCAAACAGAAAGA
GCTCAGTGAGAAACAGCTAAGCCAAGCCACTGCTGCTGCCACCAACCACACCACTGATAA
TGGTGTGGGTCTGAGGAAGAGAGCCGTGGACCCAAATCAATACTACAAAATCCCGCAGT
CAAGCAATTCATCAGCTGAAGGTCAATGGGGAA

Sequence 1765

TCACCCCGCGTCCGACTTGAATCCCGTCAGCTTAAACTTGTGTAAGGGAATCCTGACTT
TTAAATGTGAGGGTATTTGGATCTGTGTTGAAAGTCGTATATTTTATCTGTGCGGTGC
TGAGTGCAAGGCCACCAGCTCCTAAATAGAGGTTCCCTATATGCGCGTATGACATGGTGAA
TAAACACAACCTCTCTCACTCAGGACATCCGGAGCGTTATGGACCGTGGTAGGTGGTCGT

TABLE 1
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TCTGTGTGCTTGTGAAAGTGTCCAGGCGTGTGCACAGCCAGTGCGCCCACTTCCGGGCTC
CTTGCTCCCTGCTGTACTGAAGTTTTGGATTTTGCATCCAATCCTGTGTGCCTGCCCTTC
T

Sequence 1766

GTCGACCACGCGTCCGGCTCCCGAGCCTGGAGAGCTCGGACTGCGAGTCCCTGGACAGCA
GCAACAGTGGCTTCGGGCGCGGAGGAAGACACGGCTTACCTGGATGGGGTGTGCTTGCCCCG
ACTTCGAGCTGCTCAGTGACCCTGAGGATGAACACTTGTGTGCCAACCTGATGCAGCTGC
TGCAGGAGAGCCTGGCCAGGCGCGGCTGGGCTCTCGACGCCCTGCGCGCCTGCTGATGC
CTAGCCAGTTGGTAAGCCAGGTGGGCAAGAACTACTGCGCCTGGCCTACAGCGAGCCGT
GCGGCCTGCGGGGGGCGCTGCTGGACGTCTGCGTGGAGCAGGGCAAGAGCTGCCACAGCG
TGGGCCAGCTGGCACTCGACCCACGCTGGTTGCCACCTTCCAGCTGACCCTCGTGCTG
CGCCTGGACTCACGACTCTGGCCCAAGAT

Sequence 1767

CCGGAAGAGTGCTTTATTGTGAAATTATTTAAACTGTCCTTTAAAGAAAAAGAGGAAA
CGATGAACAAAACTAATCTAATTGCCAAGTTAGAATTCATNATTTAATTTACCTCCTAT
GCAATGATTAATGCTGCAAAATGTATGGTTATGTTACCGTATATTCACAAAAGAAATATT
ATTACAAGTTTCAGAGGTAGCCAATTGCATTCTTTTGGAAATTTACTGTACTGTTTCAA
TGTGTTAAGTGCCTTGTGTAAAGTAAATTTTAAAGTCTAGATTCATTATTTTCTGACA
TATATTTTTCATTATGATATCTACTGTATGCTATTGTGATAGTTTTATGAAATGCTTACA
TTTTAATCAAATATGTAATTTTCAAGAGCTCTTTTTTCTACCCACCAGTACCTTAATCA
TTTGTTTATCACATTGGATTCAAATTCAGGTTCTTTTTTGATAAAGAGGAAATTTGTT
T

Sequence 1768

CCGGTGGGATAGTAAAAGAGAAGACGCGGAGAAGAGGAGAGGACCTACAAGAACGGAGGA
CAGGGGCGCACGATGGTCCCGGGGGGAGCGGAAACAAAGGNACGCAAAACGGAAAAGCGT
GTGTAGGGGAGCGGAAAAGGAAGGTCACCACCTGTGGCCTGCGACCGAAATGGCGAAAAG
TCTTTTGAAGACAGCCTCTCTGTCTGGAAGGACAAAAATNTGCTACATCAAACAGGATTG
GTCACTTTTATAGTACATCCCATGGTATGTTTATGNAGGGAAGGAAGTGNAAAANNAACA
CCTTCAGCAGTTTTCTGGNTGNNATTCCATTGNACCTNTNAGNAAGGGAAGNACAANTG
GGGCATTTGGGNCATTTCTTTACNTCTTGAACCAATTCCCAAGTTAGGAATGGAATGCC
CTTTTTTCAAGTTGTTAATTGNATGCTACAACTTCTTGGNAAAAAAGTTAATTTGGAAT
TTGGGAAAAAATTTGGGAACAANAGGGGGGAAAAAGGCCTCCATTGTNCCCGGTGGGGG
GCCAAAAAATACCTTTTCTTC

Sequence 1769

GCGTCCGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGATTG
TGTACAAATTGAAATGTCTGTACTGATCCTCAACCAATAAAATCTCAGTTATGAAAAAA
AAAAAAAAGG

Sequence 1770

GTCGCCCCCTCAGCCGCTTCCCCTCGCCATGGAGGCGAGGCCGCCGCCGCCGCCGCCGGGC
TCGGAGCCGCGGGCCGGGCGGCGGCCCTGAGGGCTAGTGGCGGCCCGAAACGCCGCCCGC
GAGCCGAGGCGGAGCCGCTGTCTCGTCCCCAGCGTCCCGCCCAACGCCCGACTCTGTG
ACACAATAAAAAAACAAGGTATTTATGGAATTCAGTGGTAAATGGATGATGC
AGTTCAAATAACTAAGATAAGCATGGATTCTGGTTCATTCTTGTCTGCTCGGCAGTGG
TCTGATATGTGTCAAGTCCAACAATGCTACCACAGTTGCACCTTCTGTAGGAATTACAAG
ATTAATTAACATCAACGGCAGAACAGTTAAAGAAGAGGCCAAAACCTCAAATCCAAC
TTCTTCACTAATCTCTTTCTGTGGCACCAACATTGAGC

Sequence 1771

GCGTCCGGGCCACATGGCCGCCGCCGCCGCTTGGAGCTGAAGTGCCGCCGCCGCCGGGCA
GCCACGGGGAATCCGCCCGCATCGCCGCCCTCGCCGGCCGGCGCGCGTGGGGCCAGAG
CGCCGGAGGCCAGGGCTGGGGCGGCACCGCGCAGCGGCCACGGGGTCCCGTTAGAGCAGC
GCCCGGCGGCTATGCCGAGAGCCCGGAGCGGCCGGAGGAGCAGAGGGGCCGNCGGGAGGG

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AGGAAACCTTTCTGCGAGTACGAGCCAACCGGCAGACCCGACTGAATGCTCGGATTGGGA
AAATGAAACGGAGGAAGCAAGATGAAGGGCANAGGGAAGGCTCCTGCATGGCTGAGGATG
ATGCTGTGGACATCGAGCATGAGAACAAACCGCTTTGAGGAGTATGAGTGGTGTGGAC
AGAAGCGGATACGGGCCACCACTCTCCTGGAAGGTGGCTTCCGAGGCTCTGGCT

Sequence 1772

TNGATGTGTATATGGACTGTTNTGAAGGGTTTTTTCTTTATAGCCANTTAAGTTNTGT
TTGGCTCGGTGCATTTTTATTATTTAATTAGTAATTTAAGTAACNGTGTGNGTAAA
ATCATTGTGAAGTTTCAAGATTCATTATGGGANGAGTTGATGGTNCANTNANGCATGATG
GTTTAAACAAATTTTAAACCAAAAAATGTTAAATCCTGCATAAATTCAACTGTANATAATA
AATANGGTGTTTTCNTGTATATGATAGNAATGCAATTAGAAGTACCTNTAGTAAANTCTT
TTGGAATCACCAATNCTTTTTGGCTTGAAAATTGGGAAAGAATTTCTGTTTATAATNCC
TTTNNAAATTAACCTTGNNGGGGGGGAGGGGGGAAAATAAAAAATTGCAGGAAAAACCTGC
ATGAGNCACCTTAANAACCTTTAAAAGTAAGGGGGCTNCCAATCTTTTANTCCCNNGA
AAACCCTGGTTGCCNTTTTTGGCA

Sequence 1773

CGTCCGTTTAAAGGCTCTGACTCTTGATCTTGAAAGCCGGACGCGGCACTGGCACTCGGC
TTCAGTTTCCACTGTGACAGATGGAGGTCTCTTTGCCCCAGCCAGGTGGCCAAGCCC
ATCCTGGCCTCAGAACATGCTGAGCACATTTGTAGGGTGGCACCTTTTTATCCAAGTTA
CTAGCTACACATCAGTGTTTAAAGAGAAAAAGTGACCTTTCATTTTTTTTTCTTGAA
ACTTGAGGAAACAAGATACATACTACTGATTTTTTTTTCTTAAACTAAATGCATGA
CTGCAGAGCGGTAGAGGTGTATTTTTCATACTGTGGGGCAAAGTATTTGTGCTGCTTT
TTGGAGATGGACTGGAACGTCTGGTTTCTGTCCCCGGGCCCGGCAGCTACCGTCTATTTT
CTGTAGAAGGTGCCACAGTGAGACCTGGAG

Sequence 1774

CCCCGCGTCCGCTTCCGGTTGCTAACGGTTCCTCAAACAGCCCCGAAAACGCTACGTGAG
CTGGGCCCTGGGCCAGAGGCAGAAAACGGACGGAAGAAAAGGTCTGGCCGGAGATGGGTC
TCACTCTGTCACCCAGACTGGAGTGCAGTGAGTGGTGCGATCATAGCTTACTGCAGCCTG
AAACTCCTGGGCTCAAGTGATCTTCTCGCCTCAGCCTCCTGAGTAGCTGGAGCTACAGGT
GTGAGCTACCCAGCATGGCTCATTTGAGATTTCTGAGTAGAGAAGTAACATGATTAAAC

Sequence 1775

GGAACCTCCCCTAGATTTTCAAGATGTATGGAAACGCCTAGATGCCCTGGCAGAAGTTT
GCTGCAGGGGCGGGGCTCTCATGAAGAACCTCTGCTAAGGCAGTGTGGAAGGGAAATGTG
GGGTTGGAGCCCCCAAACAGAGTCTTAGTGGGGTGCTGCCTAGTGGAGCTGTGAGAAGA
GGGCCATCATCTCCAGACCCAGAATGGTAGATCCACTGACAGCTTGAAGTGTGCACCT
GGAAGAGCCGCAGACACTCAATGCCAGCCCGTGAAAGCAGCCAGAAGGGAGGCTGTACCC
TGCAAAACCACAGGGGCAGAGCTGCCCAAGACTGTGGGAACCCACCTCATGCTTCAGTGT
AACCTGGATGTGAGACCTGGAGTCAAAGGAGATCATTCTGGAGCTTTAAAGTTTGACTGC
CATGCAGGATTTGCGACTTGCATGGGCCCTGTAACCCCTTTGTTTGGCCAATTTCTCCC
GTTTGGAAACGGCTGTAATTACCCAATACGTGTATCCCCATCGTATCTAGGAAGTAACTAG
CTTGCTTTTGTGTTTACAGACTCATAGGTGGAANGGACTTGCCTTGTCTCAAATGAGACT
TTTGGACTGTGGACTTTT

Sequence 1776

GCGTCCGGAACCTTTATAAGAATTTATGCCGTTNTACATGAACCGTTAAGTTTTGTACTTG
ACGTTTCTGTTTATTANGCTAAATTGTTCTCAGGTGTGTGNTATATATATACATATAT
ATATATATATATATATGTATATATATACACATATATACGTATATATACATATATATGTAT
ATGGAGTCTCGCTCTGTTGCCAGGCTGGAGTGCAGTGGCACGATCCCAGCTCACTGCAA
CCTCCGCTCCCGGGTTCGGGCGATTCTTCTGCCTCAGCCTCCCTGGTAGCTGGGGCTGC
AGCCATGTGCCACCAAGCCCAGCTAATTTGTATTTTGGTGGGAGACAGGGTTTACCAT
GTTGGTGAGGCTGGTCTGGAAGTACCTCAAGTGATCTGCCACCTCGGCCTCCCAAGGT
GTTGGGATTAACAGGTGTGAAGCCACCACGCTGTCCAGTATATTGTTTAAAGTTTA
TTTTGGGTGAAAAATTCTCTTTAATGGGAAGA

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Sequence 1777

CCACGCGTCCGGCGCCCCCTCCCGGCCGCCATGTTGGCTGGTGTGTGGGTGTCAAACCTGA
GCCAGACGCGGCGGTGGCGGCGGCTCCGCGGGCTACGGTCGCTCCCGCCTCTCGAGCGCT
GCCGGTGGCCGAGCGGCGCACCCACGCCGGCCGGAGGAGCAGAGTGCTAAGTGCTGGG
TGCTCACTGGTGATGAGGCAGATGAAGTTACCAAACCTTGTGGACAGGAGCCTCATATCA
GAGACGTGGACCTCACTGTAGCCTGGTCATGGCTTCCAGCTTTTCGAATCTGAGGCTCCA
AAGGAGGAAATGACCATTACAGGATCTTACTCCAGCTTGATTACGGAGACTGAACCTTCA
TAGGGTGCGCACTTACCAAGGACAGGAAGGTTTCTCTGTTTGAAGGGCTTTAACTTATA
ACAAAGAAAATAA

Sequence 1778

CGCGTCCGAGACAGTTCATACTGGAGACAAACCCTACAAATGTAATGAATGTGGCAAAAC
CTTTAAACGGAACCTCAAGCCTCACTGCACATCATATAATCCATGCAGGAAAGAAACCATA
TACATGTGATGTATGTGGCAAGGTCTTTTATCAGAATTCACAACTTGTAAGGCACCAGAT
AATTCATACTGGAGAGACACCTTACAAATGTAATGAATGTGGCAAGGTCTTCTTTCAACG
TTCACGTCTTGACAGGGCACCGGAGAATTCATACTGGAGAGAAACCCTACAAATGTAATGA
ATGTGGCAAGGTCTTCAGTCAACATTCACATCTTGCAGTGCATCAGAGAGTTCATACTGG
AGAGAAACCTTACAAATGTAATGAATGTGGCAAGCCTTTAATTG

Sequence 1779

NCCCCGCGTCCGCTGTTGGAGCAGTAGACTTCTCACATCTTTTTGTCACTTCATCGTTTG
ACTGGACAGTAAAGCTTTGGACAACTAAGAATAACAAGCCTTTGTATTCATTGGAAGATA
ATGCAGACTATGTTTATGATGTTATGTGGTCACCTACCCACCCAGCCCTGTTTGCCTGTG
TGGATGGCATGGGGAGATTGGATTTGTGGAATCTCAATAATGACACAGAGGTACCAACTG
CCAGCATTTCTGTGGAGGGTAATCCTGCTCTTAATCGTGTGAGATGGACCCATTCTGGCA
GAGAGATTGCTGTGGGTGATTCTGAAGGACAGATTGTTATATACCGATGTGGGAGAGATT
GCTGTTCCCCGCAATGATGAATGGGCACGGTTTGGCCGAACACTTGCAGAAATTAATGCA
AACCAGAGCTGATGCAGAGGAGGAAGCAGCTACCCGAATCCTGCTTAGTTCTGAAAAGGG
GAGTGTAAGTGTGATTGGGAAAGGGTC

Sequence 1780

AGTAGGAACCAAGAAAACCTTCTTTTGCCAACTTTACAGGATATCTGGTAAACTATTACAT
NGTCAGGCCAAACATGCTCCTTGCATTTTTGTGGCTGAATNTGGGTACAGAGTGGTTCT
ATACGATGGTAATAACCAACTTGNAATCAAAGGAAGNATTCCAACAGAAACAGATAGGAN
AANGTCTTGAGAAGATATATNAAGGAATNTGTCACTTGTACACNATGCCGATCACCGG
GACACAAATTCCTGCAAGAAGGGACACACCGGACTCTATTTTCTACAAGNGCAGGAAA
CCTTGTTCACTTAAGCATGGTTTCTGNTTGCCAGGTATTCAAAAAA

Sequence 1781

ACCCACGCGTCCGGCTGCGTTGGGCTTGCCTGCGGCTCGCTAAGACTATGGCGTCCGGGC
CTCATTCGACAGCTACTGCTGCCGCAGCCGNCTCATCGGCCGCNNCAAGCGCGGGCGGCT
CCAGCTCCGGGACGACGACCACGACNACNACCACGACGGGAGGGATC

Sequence 1782

CCGCGTNCGTTTGTGTTGAATGGNTTGTATACTTCTTTACACAACCTATCCATTACTTAA
GGAATCTGCTCTTATTCTTCTACAACTGNTCNGGAACAAANTGATATCAGAAATTNGAT
AAAAGAACTTCGAAATGNTTGAAGGAGTNGAGGAAGNTCATTGAATTNCATGTTTGGCAA
CTTNGCTGGAAGCAGAATCATTGCCACTG

Sequence 1783

GTGACCCCGCGTCCGGGCCCCGTCTACAAGGNTTGTAGATAAAATAGAAACATACCTTCC
TTGAAAATCGAGAATAAATTTTTAAAGGCAGGAAGGAAGTGTGTAACCATGTGTCAAC
AAGCTTTACTGTCAAAGCAGGCTTTTGGTATGGGAAGAAAAATACTTATAAATACTNGTN
TTAATATTTGCTTTTATTAATAACATTTAAATACAGCATTTTTAAATCTCTAAGCTCAA
CTTGAAGATATAAGAACAGTAAATTTGATAAAAATGAGAAATTACATTTCCATTTCTTTA
ACAATTTGTAAATTCGAATTAATCCTGAACATTTAACACCATTTACATATTTTATTAATCA
CATTTCTTAAACATTTGATAAGAGATTTAATATTTTGTATCCAACCTACCA

Sequence 1784

Sequence 1785

Sequence 1786

Sequence 1787

Sequence 1788

CCCCGCGTCCGAGCAAACAT AAGAAACCTGAGTCATTTTGTCA TTTAGAGTATTCTGATA
AAATCTCTTGAAAATACTGAAATCAAAAGGTTAATGATTTTTTGTTCATTCTGATTTGTC
ATTTTATTATCTGTCTAGCAGAAAAATCAAATGGGTAAATTAGCACTTTAGACAGCCAAC
ATAGTGAAACCCCTCATCTCTACTAAAAGTTGGCAATTAATCTGAATTTACAGATACAGA
TAACAGTTTATCAGAAATCATATTTTTCTGAAGAAAATTTAAAATTAGGAGTTGTGGGC
CTGGTGCGGTGGCTTACGCCTGTAATCCAGCACTTTGGGAGGCTGAGGTGAGCAGATCA
CTTGAGGTCAGGAGTTGAGACCAGCATAGCCAACATAGTGAAACCCCTCATCTCTACTAA
AAGTACAAAAATTAGCCAGGTGTGGTGGCCGTGTGCCTGTAGTCCCAGCTACTCGGGAGG

TABLE 1

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CTGAGGCGGGAGAATCGTTTGAACCCG

Sequence 1789

GACCACGCGTCCGGTGGCGTCTGGGCTCGTCCCCTTCTCTGTCTCCCTTGCCTCCC
CCATCACGTCCCCTGACACCGACACCCATTGCTCCCACAGTCTCCCCAGNCTCCACTTT
GGTCCCCAGCGCTGTCTGCCCAGGATTTGCCTGAAGGCTGCCCCAACTCTGCACCCGC
CCCCGAGGGGCCACCGAGGACCATGACTAAGACAGATCCTGCCCCGATGGCCCCGCCACC
CCGAGGAGAGGAGGAAGAAGAGGAGGAGGAGGATGAACCCGTCCCCGAGGCCCCAGCCC
CACCCAGGAGCGCCGGCAGAAGCCTGTTGTGACCCCTCGGCACCTGCCCCCTCCCTAA
GGACTACGCTTTCACCTTCTTCGATCCCAATGACCCGGCGTGCCAGGAGATCCTGTTTGA
CCCTCAGACCACCATCCCCGAGCTGTTTGCCATTGTGCGCCAGTGGGTGCCCCAA

Sequence 1790

CGGGGTCTTCTTGCTGTGAGGTGCGTTCGCCAGTGTTACGGAGGGTCCTTGAGGCAAGG
AGTGAATAATTGGGTCTGGGGGTAGTCCTGGGGTGGAGGTCTGGGCACGCCGGGTCCGAC
CCCCTNCATCTTCGNTTTGCACACCCCGCTTTCAGCGCGGAGTCCGCGCGGGTAGGG
CNGGCGTCNCGTGCGTGACGTATCCAGCGCGCCTNCGAGGCTNCAGTGGCCTTGACC
TCCCGCGNGTGGGAGGCTGCGCGCGATGCTGCANTTTCGTCCGGGCCGGGCGNGCGGG
CCTGGCTT

Sequence 1791

GGGTATGAGAAGAACGCTCAGAGCAGAGCACCGAAAGTGGCCACTACCAGCATGAAGAG
CCCAACAATTCAAAGTGGNAGAAGTGAGAAAAACAGAATGCAGCTTCAAGGTTCTGTTT
AAGCAGTTGGCTTGTGGGACTCTGAGAGATGCTGCTGNCCATGACATGCGGGAATTATCA
TGATCAACTACCCAGCTTGGATTTACCCAGTGGCCAACTAGCTTTGTGTGGGAGACGGC
AAGGGTTGGATTTTTCAAAGAGTAAACCAGACCCGTGACCAAGGTGTNAACTAAGAAGT
GGAGTCATGCTTACACCGGNCNTATCNTGCTGGCAGCCATTCTGGGTCTGGCTGTGGTG
TTAATCTTCATGGGATCC

Sequence 1792

GTGCTGGTTTNTCTTGACAGATGCTGCTGCTAGGGGTGGTGGGAAGCAGCCGTGGGACGCG
TGGCCGGNAGCGGNGGTGACAGCCTGGGANNNCGGGGGCTTNTCTTCCTTGTCTCCTCC
TNTCCTGTCTATTCCCAGNNGGGGCGTGGCTGACACTAAAGACTNTGTANNCATCAACC
CGAGTGCAANTTCNATGGAAAATGAAGTTGCACGTTTTCAAAAAATACCTAATGGTGAA
AATGAGACAATGATTTGCTGTATTGNCAACCAAAAAAGCAAAGGGNATTNCCANTCATT
GAAGNTGCAAGCATTCTNCAAGCTGATCTTCAAAATGGGTCTAAACAAAAATGTNAAGNTA
AGTTCNTNAGGCNAGCCCTTTCATGGTTTNGAAATGAGNTTTCGNTTTTTATGTGAAGN
TGGAGGCCNCCNTGTNGGAAAGAAANGTNTTTTTCNCCAGGTTTTNAAAA

Sequence 1793

GTCCGTTTTACAACCTAGTAATAATGTGGATAAATGTATCTACATGACACATGTCAAGAC
CAAAATAACTGTGAATGACACACCTTGCTGTAAATGAAGTGTGCTAACCTGACTGTGGG
CTTGAGAACAAAGATGAAGTCTAGAACTCTAGCAGCCTAACTGCTGCTTCTCAAATAACT
GTGTGAACAGTGAGATATTACTGTTTGTCTAAAAATCCTACTGTGCCAGTTTCCTTC
ACTACATGCCCTGCATTTTTTATTTAAATATTTAGCTGTAGCGCCATCAGATATGGATGC
CTTCTAACAATTGCTGTTTGTAAATAAATCAGGATGGTAGAAAGTGATTATATGGAAAA
TTGGAACCTGGATGAGACCTTTTCGTTGAATTCTGAAGAGTAATGATGTGAAAATTGATA
CAGGGCAAGAGATGATTCTTTGGGTTTTCTTCTACTTCATGTCCAGAAGAGTAAGAGGG
GAAAA

Sequence 1794

TNGTTGCTGCAATACTACACTTTACAAACAATGTTAACACTGTGATTCCTTCATTGTTT
TAAGAAGTTAACCTAGGGCCGGGCATGGTGGCTCATACCTGTAATCCTAGCACTCTGGGA
GGCCGAGGCAGGAGGATCCCTTTAGCCCAGGAGTTAAAGACCAGCCTGGGCAACATAGGG
AGACCCTGTCTTTTTTTGGGCAGCGTGGTGGGGGATAAATAAATAAAAGGAAAAAAATC
TAGCCTAGAATTAGAATTAATTAATTGAATTCATCTAAAGATGTCTCTGGTGATTTTT
ATATGTTCCGCTATATAATTGATGCTTTATAGTTTTATCATAATCCAACAACCTCAGTTA

TABLE 1

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TATTTAATTATTGGTAANGGAGTTTAAGACTNGAAAGACTAGAGTGCTTTCTAGTCCAAA
TAGAGGGTCANGTGAAACCAGCTTTTTGACATCAAGATTTTCATTTTGAGAAGGGANAAG
CCTGTGGGACTGGGCTTAAA

Sequence 1795

GTCCGGAGAAAAGTGAACCTTGGCCAGNTCCTCTTCTCCACCAATAGATGCAGCATCCGC
AGAGCCCTATGGCTTCCGTGCCTCAGTGTTATTCGATACAATGCAACACCATCTAGCCTT
GAATAGAGATTTGTCCACACCTGGCCTGGAGAAGGACAGTGGAGGGAAGACACCTGGTGA
CTTTAGCTATGCCTATCAAAAGCCTGAGGAAACAACCAGGTCCCCAGATGAAGAAGATTA
TGACTTGAGTTATGAGAAGACCACCCGGACCTCAGATGTGGGTGGCTATTACTATAGAAA
ATAGAGAGAACCACAAAATCTCCAAGTGACAGTGGCTACTCCTATGAGACCATTGGGGAA
AACTACCAAGACCCCTGAAGGATGGTGACTATTCCTATGAA

Sequence 1796

CCGGCNTAGGCGGGGGGAACACGCCGCTGCGCTCTCTTGGGACCCTAGATTTGGGGGAG
GAGGTAACGAGAGGCGGAGAGGGTGGCTCCTCAAATATACACCCCTCCTGTCCTCCGCCA
CCCCACCTTTGATTTCTCTTCCCTCAACCCAGCACTCCAGCCCCACCCAGGGTCAATTT
TTGCCCCCTTCCATCTGAGCAGTGTTACCAGGCCCCAGGGGGACCGGAGGATCGGGGGCC
GGGTGGGGGGTCCCATGGAGTACTCCAGCACACGACAGGGGCTCCCTGCAGACAGGGGGGG
CCTTCGCCCTGGAAGCCTGGACGCCGAGATAGACTTTCTGAGCAGCACGCTGGCCGAGCT
GAATGGGGGGTCCGGGTCATGCCGTACGGCGACCGAGACCGACAGGCATATGAGCC

Sequence 1797

TCCGATTNNGCCNAGGGTTGCAGTTTGTAGACCCCTGATCTAGACCCCTTAAGTAGCCTTG
TTTGTGCCTGAAGTTTACAGATGATCCCCAAGTTATTTTATTTTATTTTGTAGATGG
AGTCTCTCTCTGGAGCCCAGGTTGGAGTACAGTGGCAAGATCTTGGCTCACTGCAACCTC
CACATTCGGGTTCAAGTAATTCTCCCGCCTCAGCTTCCTGAGTAGCTGGGATTACAGGC
GTGTGCCACCATGCCAGCTTTTTTGTATTTGTATGTTAGCCATGTTGGCAAGGCTGGCC
TCAACCCCTGACCTCAAGTGATCTGCCACCTCAGCCTCCCAAAGTGCTGGGATTACAGG
AGTGAGCCACCATGCCCGAACCCCAAGTTATGTTTGAATTACAATGTTTGGACTTTATGG
ATGGTGCAAATGTTATATGCATTTAGNAGAAACTGGGCTTCAAATTTTGAATTTTGA
ATCTTTTATTTT

Sequence 1798

TCCGCTGCCGAAGTCAGTTCCTTGTGGAGCCGGAGCTGGGCGCGGATTCCGCCAGGCACC
GAGGCACTCAGAGGAGGTGAGAGAGCGGCGGAGACNACAGGGGACCCCGGGCCGGCGGC
CCAGAGCCGAGCCAAGCGTGCCCGCGTGTGTCCCTGCGTGTCCGCGAGGATGCGTGTTCG
CGGGTGTGTGCTGCGTTCACAGGTGTTTCTGCGGCAGGCGCCATGTCAGAACCCGCTGGG
GATGTCCGTCAGAACCCATGCGGCAGCAAGGCCTGCGCGCCGCTCTTCGGCCGAGTGAC
AGCGAGCAGCTGAGCCGCGACTGTGATGCGCTAATGGCGGGCTGCATCCANGAGGCCCG
TGAGCGATGGAAGTTCGACTTTGTACCCGAGACACCACTGGGAGGGTGAAGTTTNCCTT
GGAANCCTTTTGGGGGGCCTTGGCCTGCCAAGCTNTACCTTTTCAAACGGGGCCCCGG
CGAG

Sequence 1799

GGCGNAGCTCGNCTTCTCCNCGCCCAAGTTCCGGCGCCGCTCTTGGGGAGCGTGCCGC
ATCACCCCGGGGGGCCCTACGCGAGGATCTCCGGGGCCGTTGGCAGCAGCCTG

Sequence 1800

TCACCCCGCGTCCGGGCGGGCGTGCGGGCGGTGGGAGGTAGTGAAGAAGGGTCCGGCGGCCT
GGGGTCCGGCGCCGGCGCCGGCGGCGGAGGAGCGGTAGGAACCGCAGGGCGCTCGGGGAA
GCAAACNGAGTGTGGAATAACNACCTGACCCCTGCAATCCAGACCACAAGCACCTTTAT
NAGCGGNGCTTTNAGAATATCATNAAGNGGNTTTAATAAGGAGCAGGTCCACCCCTGC
TGTGGAA

Sequence 1801

GTCGACCCACGCGTCCGGGAGCAGAGTCGACTGGGAGCGACCGAGCGGGCCGCCGCCGCC
GCCATGAACCCCGAATATGACTACCTGTTTAAGCTGCTTTTGATTGGCGACTCAGGCGTG

TABLE 1
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GGCAAGTCATGCCTGCTCCTGCGGTTTGCTGATGACACGTACACAGAGAGCTACATCAGC
ACCATCGGGGTGGACTTCAAGATCCGAACCATCGAGCTGGATGGCAAACTATCAAACCTT
CAGATCTGGGACACAGCGGGCCAGGAACGGTTCGGACCATCACTTCCAGCTACTACCGG
GGGGCTCATGGCATCATCGTGGTGTATGACGTCACTGACCAGGAATCCTACGCCAACGTG
AAAGCAGTGGCTGCAGGAGATTGACCGCTATGCCAGCCGAGAACGTCAATAAAGCTCCTG
GTGGGGCAACAAAGAGCGGACCCTCACCACCAAGAAGGTNNGTGGGACCAACACCACAA
GCCAAGGGAGGTTTGGCAAGACTTCTTTTGGGGCATT

Sequence 1802

NCCCCGCGTCCGCGGACGCGTGGGCGGAGCTGCTGTGCAGTGGAAACGCGCTGGGCGCGG
GCAGCGTCGCCTCACGCGGAGCAGAGCTGAGCTGAAGCGGGACCCGGAGCCCGAGCAGCC
GCCGCCATGGCAATCAAATTTCTGGAAGTCATCAAGCCCTTCTGTGTCATCCTGCCGGAA
ATTGAGAAGCCAGAGAGGAAGATTGAGTTTAAGGAGAAAGTGCTGTGGACCGCTATCACC
CTCTTTATCTTCTAGTGTGCTGCCAGATCCCCCTGTTGGGATCATGTCTTCAGATTCA
GCTGACCCCTTCTATTGGATGAGAGTGATTCTAGCCTCTAACAGAGGCACATTGATGGAG
CTAGGGATCTCTCCTATTGTCACGTCTGGCCTTATAATGCAACTCTTGGCTGGCGCCAAG
ATAATTGAAGTTGGTGACACCCCAAGACCGAGCTCTTCTTCAACGGAGCCCAAGTT
ATTTGGCATGATCA

Sequence 1803

CGCGTCCGCGCTTCTGTTACGGCCAGTGCAACTCTTTCTACATCCCCAGGCACATCCGGA
AGGAGGAAGGTTCTTTTCTGCTCCTTCTGCAAGCCCAAGAAATCACTACCATGA
TGGTCACACTCAACTGCCCTGAACCTACAGCCACCTACCAAGAAGAAGAGAGTCACACGTG
TGAAGCAGTGTGCTTGCATATCCATCGATTGGATTAAGCCAAATCCAGGTGCACCCAGC
ATGTCCTAGGAATGCAGCCCCAGGAAGTCCCAGACCTAAAACAACCAGATTCTTACTTGG
CTTAAACCTAGAGGCCAGAAGAACCCCGAGCTGCCTCCTGGCAGGAGCCTGCTTGTGCCG
TAGTTCTGTGTCATGAAGTGTGGATGGGTGCCTGTGGGGGTGGTTTTTAGGACACCAGAA
GAAAACACAGTCTCTTGCTAGAGAGCACTCCCTATTTTGTAAACATATCTGCTTTAAGGG
GGATGTACCAGAAACCCACCTTACCC

Sequence 1804

CCCGCGTCCGTAGATTAAATTATGCAAGTTGCAAGAATGTAGTAACTCTGATCAGCTACA
AGGAAAGGAGGAAAGAGTAAATGAAGAAAGTCATCTAACTGAAAAGGAATATATAGAACA
TTGTAACACCCCTACAACCTGATTCTGATTCTATAGCAGTTAAAGCACTACAAATAGA
TAGCTTTGGTTTAGTTACATGCTTTCAACAAGAGTCTCTTGATGTTTCTCAAATGATACT
TGAAAATCTCAGCAACCTGAGTCAAAAATGCAATCTGAATTTATAAAAGAAAAAGTGC
TACTTGTTCAAATGAGGAAAAAGGTAACCTAAACGAGGTCAGTAATAACTGAAGAGAAAG
AAACAGATGGGAGATCACCTATCTTCATTACTGAACCAAACTACCNGTTCACAATATA
CCTGGATTGACAGCATAAAAGAAACC

Sequence 1805

GCGTCCGCGCAGCTGAAAGGGGATTTGGGCCCGGAAGATCCGAGTCCATCCGCGGCGGGGA
GAGGGCAAGCGGGACCGGTAGGGGCCGAGCAGCGGCGGCGCTCGGACTGTCCCATC
CGCCCCGTATTGAGGCGCTGGGAGCGGCGGGGCGACAGGAAAGCGATGGTGAAAGCGGGG
CCGTGAGGGGGGCGGAGCCGGGAGCCGGACCCGCACTAGCGGCAGCAGCGGCGCCGCTC
CCAGAGTTCAGACCCAGGAAGCGGCCGGGAGGGCAGGAGCGAATCGGGCCGCGCCGCCA
TGGAGCTGAGAGTCGGGAACAGGTACCCGGCTGGGCCGGAAGATCGGCAGCGGCTC

Sequence 1806

GTCGCCCCGCGTCCGCACAGTTGATTCTGAATTTTTAAGGCTTTCCTAATAGGCTGATCA
CAGAGAATAATCCATTTTGAAGGTATAAACTGCACTGTATGTCTGCTCACTTGTAGCTGA
ACTGATTCACATTTTGACAAAAGAGAGAAAAATACAAAATGAGTTTTGCAAATGTAATAA
CTTTTTCTGCATATAGAACTAAATAATTGAAAAATATGGGCTATAGTTCTCAAAGGTAGA
TAGTAAATCACTGGCTTTTTCCAGCTGTATGTTTTCCACTGTGCGTGTACACACACAC
TGGAAAATAATTAGGCTGATTTTGCAGGTCTTCATTGTTAGAGATTCTGAAGTATTTACT
GTCAATTCATAGGTTTCAGTTTATTTAGGAAATTAGTGTTTGACAGCTTTTTTAAATTA

TABLE 1
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TTTCACTGAAGCTGAGATTATTAGTGATCAAAGTTAAAATTTCAATATTTAATTTCTCTA
TATATTATTAATATTAATAATGGTTT

Sequence 1807

GTCGACCCCGCGTCCGGTACTACATCCCCTGAAGAAACATGTGCCAGGTGATTCGTGAA
GCTAAGAGAACAGCACCAAGTATAGTGATGTTCCCTCATATCCACGTGTGGTGGGAAATA
GTTGGACCGACACTTAAAGCCACATTTACCACATTATTACAGAATATTCCTTCATTTGCT
CCAGTTTTACTACTTGCAACTTCTGACAAACCCCATTCGCTTTGCCAGAAGAGGTGCAA
GAATTGTTTATCCGTGATTATGGAGAGATTTTTAATGTCCAGTTACCGGATAAAGAAGAA
CGGACAAAATTTTTGAAGATTTAATTCTAAACAAGCTGCTAAGCCTCCTATATCAAAA
AAGAAAGCAGTTTTGCAGGCTTTGGGAGGTACTCCAGTAGCACCACCACCTG

Sequence 1808

CCCCGCGTCCGGCCTTTAAAGAAGACTTGAATTCCTATGGAACAATAAAGACACAGCAG
AAAACAGGGATTCTCCTGTTTCAGAGGAAATAAAAAATGACCTGTCAACAATTTATCCATT
ATCACCGTGACCTCTGTATCCGAAACATTGTCAAAGAAAGAAGGTGTGGTGCAAAGACTT
CTGCTGGAACCTTTCTGTGGCTGTGACCTGGTGAGCTGGCTAATTGAAGTCGGCCTTGCT
CCGACCGTGCTGAAGCTGTGATATACGGAGACAGGCTGGTACAAGGGGGAGTCATCCAAC
ATATTACCAACGAGTATGAATTCGGGATGAGTACTTGTTTTACAGATTTCTTCAAAAGA
GTCCTGAACAGAGTCTCCTGCTATTAATGCAAACACTCTCCAACAGGAAAGATATAAAG
AAATTGAGCATTATCCCCACCCTCACATTCCCCTAAGACCTAAATTATGCAGGGGAGAA
CCCTACATGGAATCAT

Sequence 1809

CGCGTCCGCTGGAGTGCTGCTGAGGAGCGANGGGCCCATCTGGGGTCTCTGGAAGTCGGT
GCCCAGGCCTGAAGGATAGCCCCCTTGCGCTTCCCTGGGCTGCGGCCGGCCTTCTCAGA
ACGAAGGGCAGTCTTCCACCCCGCGGCGCAGGTGACCGCTGCCATGGCTTTTCCCCATC
GGCCGGACGCCCCTGAGCTGCCTGACTTCTCATGCTGAAGAGGCTGGCTCGAGACCAGC
TCATCTATCTGCTGGAGCAGCTTCTTGAAAAAAGGATTTATTCATTGAGGCAGATCTCA
TGAGCCCTTTGGATCGAATTGCCAATGTCTCCATCCTGAAGCAACACGAAGTAGACAAGC
TATACAAGGTGGAGAACAAGCCAGCCCTCAGCTCCAATGAACAATTGTGCTTCTTGGTCA
GACCCCGCATCAAGAATATGCGATACATTGCCAGTCTTGTCAATGCTGACAAATTGGCTG
GCCGAA

Sequence 1810

CGCGTCCGCTGCATCTGAGGACTGGTGGGAAGGCANGGCACAACGGGATTGACGGGCTGG
TGCCTCACCAGTATATAGTGGTGCAGGATATGGATGATACGTTTTAGACACTCTGAGCC
AAAAAGCCGACAGTGAGGCCAGCAGTGGGCCAGTCACGGAAGACAAGTCTCATCCAAGG
ACATGAACCTCCCGACAGACCGTCATCCTGACGGCTATTTAGCCAGGCAACGAAAAAGAG
GAGAGCCACCCCTCCAGTAAGGCGTCTGCGCAGGACCAGTGAT

Sequence 1811

TCAGGAGTCGACCCCGCGTCCGGAAGGCCGATGCTGTGGGGGTGGGCGTGGAGAGAATTC
TTCTGTGGGTCTCTGGTGTGAGTGGTGGCTTGGTGTGGTGTGCGGAGGAGCTCCAGG
CCCGTCCGCGCGGAGTGGTCTCACGTGTGAAACATGGCTACAGATTGGCTGGGAAGTATT
GTGTCCATCAATTGTGGAGATAGCTTGGGTGTCTATCAGGGAAGAGTGTGAGCTGTGGAT
CAGGTGAGCCAGACCATTTCTCTACCCGGCCTTTCCATAATGGAGTGAAGTGTCTTGT
CCAGAAGTCACCTTCAGGGCAGGTGACATTACGGAGTTAAAAATTCTGGAGATACCAGGA
CCTGGAGACAACCAACATTTTGGAGACCTTCATCAAACAGAATTAGGCCCTCTGGTGTCT
GGCTGCCAAGTGGGCATCAATCAGAATGGCACAGGCAAGTTTGTCAAG

Sequence 1812

CCGCGTCCGCCCAGTCCNAGTGCTGGCTTTCCCTGTATCTGCCTCTGCCAGGCAACACTT
ATCATGGCTCCCAATCAGCAGGAGCCTCCATGCTCCACTTTGAACAGCCTCTATGCTCCA
GCAATGGGGCATTTGTGAAGAGTGACTTGATTAACCTTTTCTGACCATGGGTATAATACAG
TTGCTTCAGAGGGCAGTGGTCTGGGTGTGATTTTTACACTGTAACATTGTATACAGTGT
CATGGATAATTACTATTTTTTCTGGTCATTAACACTCACCTACTCTAGTACTAGGATT

TABLE 1
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CAGACCAAGGTCCTCATGACGCCTGGATATTTTAGTATCTATATCCAATAATCTTTTCTC
TCCTACTGAATATCCAGGCAAAGATGAAATCGTTTTCTTTAAACTGTCAAATTCTGTAA
AACTCAGGAGCCAGTTCAAGGGAACAAGCATCTTCACAATAGATGGAATCAAGAGTTAAA
TGTTATAGTGGCAAGCTTGTCTACTGGGCAACAGAC

Sequence 1813

CGCGTCCGCCGCGCGCTCCGCTCCCGGTCCCTGGCCCCCTCAGCGGCATGGCGTGCGGGGC
GACGCTGAAGCGGCCCATGGAGTTCGAGGCGGCGCTGCTGAGCCCCGGCTCCCCGAAGCG
GCGGCGCTGCGCCCCCTGCCCCGGCCCCACTCCGGGCTCAGGCCCGGACGCCGAGCC
GCCGCCGCGTTTCAGACGCAGACCCACCGCAGAGTCTGCAGCAGCCCCGCCCGCCCGG
CAGCGAGCGGCGCCTTCCAATCCGGAGCAAATTTTTCAGAACATAAAACAAGAATATAG
TCGTTATCAAGAGGTGGAGACATTTAGAAGTTGTTCTTAATCAGAGTGAAGGCTTGTGCT
TCGGGAAAGTCAACCTCACTCCTCAGCACTCACAGCACCTAGCTCTTCCAGGTTCCCTCAT
GGATGAAGAAGGACCAGCCACATTTACC

Sequence 1814

CGCGTCCGTTGAAGAATAATATTGTATGTGCATTTTATCCATTAATGTTTCATACTTTCT
GAGAGTATAATACCCTTTTAAAGATATTTGGTATACCAATACTTTTCTGGATTGAAAA
CTTTTTTAACTTTTTAAATTTGGGCCACTCTGTATGCATATGTTTGGTCTTGTTAA
GAGGAAGAAAGGATGTGTGTTATACTGTACCTGTGAATGTTGATACAGTTACAATTTATT
TGACAAGGTTGTAATTTCTAGAATATGCTTAATAAAATGAAACTGGCCATGACTACAGCC
AGAATGTTATGAGATTAACTTTCTATTGAGAAGCTTTTGAGTAAAGTACTGTATTTGT
TCATGAAGATGACTGAGATGGTAACACTTTCTGTGTAGCTTAAGGAAATGGGGCAGAAATT
CGTAAATGCCTGTTGTGCAGATGTGTTTTCCCTGAATGCTTTCGTATTAGTGGCGACCAG
T

Sequence 1815

GTCGCCCCGCGTCCGATTTAACTGGGTCTTTATAAAAGTAAAATGGCCAACATTTAATT
ATTTTGCAAAGCAACCTAAGAGCTAAAGATGTAATTTTCTTGCNATTGTAAATCTTTTG
TGCTCCTCGAAGACTTCCCTTAAATTTAGCTCTGAGTGAAAAATCAAAAGAGACAAANGA
CNTNTTCGANTCCANNTTTAAAGGCTGGGGGAAANTGGGTTTTTTCGNCNCAACCNNTTNCA
AAGTTTTNTTNGGGGATTTCATAACANCNCCACCNAATTGNTTTTTTGTGGCANACATT
CATTTCAATACTAGTTATATTNANNAGGAGTNGGTAGAGAGGAAACATTTGACTTATCTG
GNAAAAGCAAACCTGTACTTAAGAATAAGAATAACATGGNCCATT

Sequence 1816

TCGACCCCGCGTCCGCTCTGCTCCTTGTCTCCTCTCNCCTTTTTCTGTCTTTGCCGGGTC
TCTGGGTCTCTGACCCCATCCGGCCCTCATGGCTTGGGTGNGGAGCTNTTGAAGCAAT
GTTTCATCAT

Sequence 1817

CCACGCGTCCGGGGGAGCCGGACGCCAGAGTCCCCTCTCCACGCCGTGCAGCTGCGCTGG
GGCCCCCGGCGCCGACCCCGCTGCTGCCGCTGCTGTTGCTGCTGCTGCCGCCGCCACCC
AGGGTCCGGGGGCTTCAACTTAGACGCGGAGGCCCCAGCAGTACTCTCGGGGGCCCCGGGC
TCCTTCTTCGATTCTCAGTGGAGTTTACCGGCCGGGAACAGACTGGGGTCAGTGTGCT
GGTGGGAGCACCCAAGGCTAATACCAGCCAGCCAGGAGTGTGTCAGGGTGGTGTGCTGTCTA
CCTCTGTCTTTGGGGGTGCCAGCCCCACACAGTGCACCCCATTTGAATTTGACAGCAAA
GGCTCTCGGCTCCTGGAGTCCTTACTGTCCAGCTCAGAGGGAGAGGAGCCTGTGGAGTAC
AAGTCTTTGCAAGTGGTTTCGGGGCCAACAGTTCGAGC

Sequence 1818

TCGACCCACGCGTCCGGTGAAACACAAAACCAAGGAGTACATTAAGAAGTACATGCAGAA
GTTTGGGGCTGTTTACAAACCCAAAGAGGACACTGAATTAGAGNAGTGTGGGCCAGGG
TGGGAGGATGGGTGGTCAGGTAANGACAAGACTCTAGGGNAGAAGGAAANCCTGTGGGCC
TTTNTGTCCACCCCTGTGACCACTGGTGCTACTGATTGATACATNACCCTGGGGGGNAA
TTNAACCCTGCCAGNATGTCAACNTGGAANGGCCACAAAGAAGTGGAACCTCCCATCTAC
AAAANNAGTTTACNCTTANATTTGTAGAAGCCTNGTTTGGCCATTGTTGCNNNTAGAN

TABLE 1
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AGTCCATNNANTAGGNGGCAAGGGGGCCNTANTAAAAATGAACCCCTGGNACAGAACCT
TGNACTTNCACATTCTTTAAANCCCTGGGAGATGNTTGGCTTTCTNTGGNCGNGTTGN
TTTGNTTCAAGCTGCTACNAAGTAAGTCTCAATGGCCGGCAATTATCCCCAACTCNCACN
AAACTCCNTTTTTAACCCCTGGCANGGAATCCTTGCAAATTAATAATTTTTAAATGGG

Sequence 1819

GTCCGGCTTTAGTGAATTCTTAATAGATNGTATATATAAAAGTACATTTTAAATAGAAAGC
CAGGGTTTTAAGGAATTTACATGTATAAGGTGGCTCCATAGCTTTATTTGTAAGTAGGC
TGGATAAATGGTGCTTAAATGGTAATGTAAGTCCACTTCTTCTATTGGAAGATTAAACATT
ATTTACCAAGAAGGACTTAAGGGAGTAGGGGGCGCAGATTAGCATTGCTCAAGAGTATGT
AAAAAAAAAAAAAAAAAANGAACCAAAACCACTGGAAATAATCAAATGCAAAAAGGTAA
CAAATTCATAACTGGAAAGCAAAGAGAAGAACAAGTATGATTTGGATGATAAAGCATTGT
TTTAATGGTGAAAACCTCACCAGATCACTTAATGTTTCTAGGAGGTAACTTCAAGTGGG
CAANTGGGGGTTTTAGGTAGGTGAGTGGCCCTAAGTTCCTAAAGCCCACAGATTAGGGA
TCTGTTAACTGAATGGTCTGTTGGAAAGGTTTTGTTTTAACTGCTTGGGAGGCTTTCCT
TTAAG

Sequence 1820

GCGTCCGGGAAAAGTTTTGCCTTCCANGCCGAAGTTAACAGAATGATGAACTTATNATCA
ATTCATTGTATAAAAAATAAGAGATTTTCTGAGAGNACTGATTTCAAATGCTTCTGATG
CTTTAGATAAGATAAGGCTAATATCACTGGACTGATGAAAAATTGCTCTTNTTGGAAAT
GGAGGAACTAACAAGTCAAAAATTAAGTGTGATAAGNGAGAAGAACCCTGCTGCATGTC
ACAGACACCTGGTTGTCTGGAAATGACCAGTAGAAGAGTTGGGTNTAAAAACCTNTGGT
ACNCATTAGTCCAAATCTGGGACAAGNCGGAGTTTTTTAAACAAAAATTGACTTGAAAG
CCACCAGGGAAAGATGGCTCAGTTCAAACTTTTTGGAAATNTGGATTGGGCCCAGTTATG
GTGGTCCGGTTTTNCTATTTCCNCCTTTCCCTTGATAGCAGATTNAAGGTTATTTNGTC
ACTTTCAAAAACAACAAACAAACNGATTACCCCAAGCAACATCTTGGGGGAGNTCTTGA
CTTCCAAATG

Sequence 1821

CGTCCGCGGGTAAATGTTATGGTAAGCATGCACANGTTTGCAGTCTACAGTTTTTTAT
GTAGCACAAAATAGGTGTACCTTTATAAGTACATTCAATTTTATGATTACATTTATCAT
GTAATTTTTTAAAAAATCCATCTATCTAGGATATGTTGGATACAAAGTCTGCTTTTGCTA
TTCTTTTTGCTTAAATACTCCTATCATTTTCTGAATTACTTGGTATTTAGAAGTCTAGC
ACCACGGGGGAAGAATAGAGGTATCATCAAACGTGGCAAATTTTCTTTCAGGAATAATAAA
GAGCATGATTCCACAGCTTTTCTGGGGATGTTTGAGATTCTTTTTTAGTACTAAGCAAAA
TTCTCATCACAGGAATGTAGCCAGGCCAATTTATACTAAATCTCTATTTTGTTGGAT
GATGCTTCTAAAACAGCATTGATAGGTAAAGAAGCTTGGGTATTTTAATTTACTTCAA
TGATTAGCTCAATTGCTTCTGGGAGTTTTAATCCTGTGGATATGTCAT

Sequence 1822

GGGCGCCCCGCGTCCGCTGATCTCGGGCTCCTATTTTCAATTACATTGTGTGCACACCAAC
GTAACCAAGTGGGAAAACCTTTAGAGGGTACTTAAACCCAGAAAATTCTGAAACCGGGCTC
TTGAGCCGCTATCCTCGGGCCTGCTCCACCCTGTGGAGTGCATTTTCTTTTCAATAAA
TCTCTGCTTTTGTGCTTCATTCTTTCCTTGCTTTGTTTGTGTGTTTGTCCAGTCTTTG
TTCAACACGCCAAGAACCTGGACACTCTTCACTGGTAACATATTTTGGCAAGCCAACCAG
GAGAAAAGAATTTCTGCTTGGACACTGCATAGCTGCTGGGAAAATGAACATCAGTGTGA
TTTGAAACGAATTATGCCGAGNTTGGTCTAGATGTGGGAAGAGTCACTCTTGGAGAGA
ACAGTANGAAAAAATGAAGGATTGTAACCTGAGAAAAAAGCAGATGAAAGTGTCTCACG
AGCTATGTGTGCTCTGCTCAATTCTGGG

Sequence 1823

CCCCGCGTCCGGTCTTTGGCACTGTCATNTGTGTCCCTCGAGTGAGCNTACCCAGAGCT
GCAGTAANNNGCACCTACTACNGGCTCTGNGCTGAGTCTTCCAGTGNGCCTCTCACTG
AATNCTACCCCACTGNCATGAGGTTTNCCTTCTGACTGATGAGGGTGNAGAGCCAGG

TABLE 1
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GAGCCTTGNTCACTGGTTCATTGANTACATTTACAAATATTATTNACAGAGTGGGAGAAG
AGCCGTATAGGGNCTTAATGCCATGGTNGGGACTTTGGAATTTAATTCAAGTGATGTGGG
AGTACCTGCCAGATGGATGGAGGGTGAAATAATGCTTAAGCCCTCAGCC

Sequence 1824

CGCCACGCGTCCGCACCGGCCCGATGAGCTGCAGCGGCTCCGGCGCGGACCCGAGGCG
GCTGCCGGCCTCCGCCGCTCGGCCCGGGCCCCGCGCCCCCGGACTNGGCTCCCGCCGC
GCTGCCCTCCAGCACCGCCGCGGAGAACAAAGGNCAGCCCCCGNNGGGACAGGNNGGGA
GGACCTGGGNGCTNAGGAGCAAGCATGCTGGGGGGCACAGGGACCCCTTTGGCGGGAAGCCG
GGCCGGTAGAGCNCAGCNTGAAGCAGGNTNTGAGGAGCTGGNTCCCTGNGNATNGGNNGA
GGATGGCCGCGCNGGANGCCCTCTCCGNGAAGGGGGGNGCTCAATAATCTTAACCGGGGGG
TTTNAA

Sequence 1825

CGCGTCCGGCTGAAGGCTCCCCTGGGNTTCTGGCCTCCTGGGGCAGAANGGGAGAGAAA
GGCGATGCTGGCAACTCCATTGGAGGAGGCAGAGGGGNACCTGGCCCTCCAGGGCTCCCT
GGGCCCCCAGGGCCAAAGGGAGAGAGGAGGTGTCCGATGGCCAGGTTGGCCCCCAGGGCA
GCCAGGAGACAAGGGGGAGCGTGGAGCAGCTGGAGAACAGGGACCAGATGGCCCCAAGGG
CTCCAAGGGAGAACAGGGAAAGGAGAGATGGTGGATTACAATGGAACATCAATGAGGC
TCTCCAGGAGATCCGGACGCTGGCCTTGATGGGGCCTCCTGGTCTTCTGGGCAAATTGG
CCCACCTGGAGCTCCAGGGATTNCAGGCCAGAAGGGGGAGATTGACTGCCANGGCCTTT
CAGGACACGATGGGGAAA

Sequence 1826

GTCGACCACGCGTCCGGTTTTTTTTTTTTTGGAGACAGAGTTTTGCTCTTGTTGCCAGG
CTGGAGTGTGATGGCTCGATCTTGGCTCACCACAACCTCTGCCTCCTGGGTTCAAGCAAT
TCTCCTGCCTCAGCCTCTTGAGTAGCTTGGTTTATAGGCGCATGCCACCATGCCTGGCTA
ATTTTGTGTTTTAGTAGAGACAGGGTTTCTCCATGTTGGTCAGGCTGGTCTCAAACCTCC
CAACCTCAGGTGATCTGCCCTCCTTGGCCTCCAGAGTGCTGGGATTACAGGTGTGAGCC
ACTGTGCCGGGCCCGTCCCCTCCTTTTTTAGGCCTGAATACAAAGTAGAAGATCACTTTC
CTTCACTGTGCTGAGAATTTCTAGATACTACAGTTCTTACTCCTCTCTTCCCTTTGTTAT
TCAAGTGTGACCAGGATGGCGGGAGGGGGATCTGTGTCACTGTAGGTACTGTGCCCAGGA
AGGC

Sequence 1827

CGACCNCGCGTCCGGCACTCTGTTCTTCCGCCGCTCCGCCGTCGCGTTTCTCTGCCGGTG
AGCGCCCCGCCCCGGGGCCTGAGCTGGACGTGCGAGGCCTGCGCCCCCGACCCCGGCTG
GCCCCGCTTCCAGCTGCCGAGGCCTCGTCGCGCCTTCCCCGGGAACAAAGCGGGGTGCG
CAATGGAAGAAGAGATCGCCGCGCTGGTCATTGACAATGGCTCCGGCATGTGCAAAGCTG
GTTTTGCTGGGGACGACGCTCCCCGAGCCGTGTTTCTTCCATCGTCGGGCGCCCCAGAC
ACCAGGGCGTCATGGTGGGCATGNNCCAGAAGGACTCCTACGTGGGCGAC

Sequence 1828

CNCCACGCGTCCGGACCGGGGAAGACGCCTCTTCGCCGCTCCGAAAACCGAGGCAGCGA
GCGACCCCCAGCATCCCGCGGCCTCCGAAGGGGCCGACGCCGCCGCCGCTCGCCGCCAC
TGCTGCGCTGCCTAGTGCTACCGGCTTTGGAGGCTACGACAAGGTGAAGCTGCAGAGCC
GGCCGGCAGCGCCCCCGGCCCTGGGCCCGGCCAGCTGACGCTGCGTCTGCGGGCCTGCG
GGCTCAACTTCGAGACCTCATGGCTAGGCAGGGGCTGTACGACCGTCTCCCGCCGCTGC
CTGTCACTCCGGGCATTGGAGGGCGCCGGGGTGTNTGATCCGCAGTGGGCGAGGGGAGT
CAGCGACCGCAAGGCAGGAGACCGGNTGATGGTGTGAAC

Sequence 1829

GGTGTGCCCCGCGTCCGCTTGTCTTTTTTGGGGGTGTGAATTTTTTGCATTGTTCTGAT
CATATTCTTTATCATGTAATTTATGTTCTTTTTTACTAAGTATTATGTGTGGTTATTATA
GATTTTCACAAAGATATATTGCTGGTAATATATTTTATTGTGTAGTCTTATAATTTACTT
AACCTTCTTTCAATTGTTAGAAATTTAGGCTATTTCCAGATTTTCAGTATTGTAAATAAT
GCTGTGATGACCAATTTTGTGAATAAAATGTTTTATGTATTTTCAATTATTCCCTTAGG

TABLE 1
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ATAGTCTCTCAGTGCCAAGTTGTCAAAAACATCTCTATTTTGCTTATCTTCCTGCTCTCT
TGCTGCCTTAGGGGGTAGTAACTGAAACATAAAGTAAACATGCATACAAATAAAAAACA
TAAACAAAAATAAGCAACCTGATGGTAATAGGTGAAAGTGGTAACCTGTTTAACTTTG
AATTCTTGCCCGGCGCGGTGGGCTCACGCCCTGTAATCCCAGCA

Sequence 1830

CGCGTCCGGTAAACCAGCCGGAGCGGCGCGGNAGCGGCAGGACCGCCGTGGCGCCTAGAG
TAGCAGACCCGGGGGAGCGCGGGGCGACGCTGGCTGCAGGGACCCGGTGACAGCGTGAG
AGGTTTTGACAAGCTTGCATCATGCGTGAGTATAAGCTAGTCGTTCTTGGCTCAGGAGGC
GTCTGGAAGNCTGCTTTGACTGTACCAATTTTGTTCAGGAATTTTGTAGAAAAATAC
NGATCCTACCGATAGGAAGATTCTTATAGAAAGCAAGTTTGAAGTAAGATGCACAACCA
GTGTATGCTTTGAAAAATCTTTGGATACCTGCCAGGNAACCGGGAGCCAATTTACANCCA
ATGGAGGGGGATTTATAACATGNAAAAAATGGGACAAAGGGATTTTGCATTTAGTTTAA
TTNCAATCACCAGACACAAGTTCCCAACATTTTAAACGAATTTTACCAAAGAACCCCTG
GAGGAGNAACCAAGAANTTCTTTNNGAAGTTTAAAAAGGAACCACCTTGAATTGGAATG
GTTCCCAAATG

Sequence 1831

CCAATTATAGACTATATAGGGGGAAGAGCACTGGATTTGGAGTCAAGAAACCTGGACACT
TGGCTCCACACTTCCTTAGCTGGGTAACTTTGGGCAAACCGCTTGGTCTCTCAAGCCTAA
GGTTCTTCAGCTATAAAATGGGAATAATACTTCACTAACTACCTCACAGAGTTGTGGTAA
GAATATAATCAGATAACTGGATAAAAACACTATATAAACTGGAAAGCGCCGTACAAATGT
GAGAGATCAGTTTTATTATCAAATCACTGTTTTCCACTGCCTCTTGAATCGGCTTTATTC
TAACCAACCATTACATCTTTCTCATCTTTGGAGTATGGGTAATTGAGGCTTGGGTGTGT
CATCAGGGACTGGGAAGTTATTCAGCTCCCATGTAAAGGTGGGAGAGGTGGTTTGTGG
GNGCAG

Sequence 1832

GNGTCGACNCNCGCTCCGCTATTTACTACCTCCTTATGAGGAAGTGGTGAACCGACCTCC
AACTCCTCCCCACCATACAGTGCCTTCCAGCTACAGCAGCAGCAGCTGCTGCCTCCACA
GTGTGGCCCTGCAGGTGGCAGTCCCCCGGCATCGATCCCACCAGGGGATCCCAGGGGGC
ACAGAGCAGCCCCTTGTCTGAGCCCAGCAGAAGCAGCACAAGACCCCCAAGCATCGCTGA
CCCTGATCCCTCTGACCTACCAAGTTGACCGAGCAGCCACCAAGCCCCAGGGATGGAGCC
CAGTGGCTCTGTGGCTGGCCTGGGGGAGCTGGACCCGGGGGCCTTCTGGACAAAGATGC
AGAAATGTAGGGAGGAGCTGCT

Sequence 1833

GCCNCGCGTCCGTGAAACGCAAAAGAAGGAGCTCGGAATATAAGAACGTCAGAACGAGTG
ACACTAATAGTGGATAACACTAGATTTGTTGTAGACCCATCCATTTTACTGCACAGCCA
AATACAATGTTGGGCAGGATGTTTGGATCTGGCCGAGAACATAACTTTACACGACCCAAT
GAGAAAGGAGAGTATGAGGTGGCAGAGGGAATTGGTTCCACTGTGTTTCGAGCGATTCTG
GATTACTATAAAACAGGAATAATCCGTTGTCTGATGGCATATCTATTCTGAACTGAGA
GAAGCATGTGACTATCTTTGTATCTCTTTTGAATATAGCACTATTAAATGTAGAGATCTC
AGTGCCCTAATGCATGAGTTATCAAATGATGGTGCTCGTAGACAATTTGAATTTTATCTG
GAAGAAATGATCCTCCCTCTCATGGTAGCTAGTGCCAGAGTGGGGAACGG

Sequence 1834

CCNCGCGTCCGCTTTAACCACCATAAGAAATCAGAAAACGCAAGATAAAGTTTCAGCACAC
AGTATGTATGGATTGCAGTAGCTACAGTACATACTGTTATCGCTGTGATGATTTTGTGGT
TAATGACACCAAGCTGGGACTGGTACAGAAAGTCAGAGAACACTTACAGAACTTGGAAAA
CTCAGCTTTCACAGCTGACAGGCATAAGAAAAGAAAACCTTTTGGAAAACCTCAACACTAAA
CAGCAAGTTATTTAAAGTAAATGGAAGCACCCTGCCATTTGTGCCACAGGCCCTTCGGAA
TTTGGGGAACACATGTTTCATGAATGCCATCCTTCAGTCACTCAGTAACATTGAGCAGTT
TTGGCTGTTATTTCAAAGAACTGCCCCGCCGTGGAGTTAAGGAATGGGAAAACAGCAGGA
AGGCGGACATACCACACCAGGAGCCAAGGGGATAACAATGTGTCTTTGGTAGAAAG

Sequence 1835

TABLE 1
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TTACTGGGCACCCANCTCCATGTGCANGACTTTTCCCAACACAGCCTTGGCCAGTCAGAT
GGTGTGNCAGGGCCNNAGGTTTNCGTANCCTCTTGGGTGATAGAAAGGGGCCAGGCCCT
GGGCTGGGGCTCATAANGGACTCAAANGAGGCACCTTGCCC

Sequence 1836

TCGCCCCGGGGGCCATGGCAGCAGCGGCTACTGCAGCCGAGGGGGTCCCCAGTCGGGGGGCC
TCCCGGGGAAGTCATTATCTGAATGTGGGAGGCAAGAGATTCAGTACCTCTCGCCAGAC
TCTACCTGGATCCCAGACTCCTTCTTCTCCAGTCTTCTGAGCGGACGCATCTCGACGCT
GAAAGATGAGACCGGAGCAATCTTCATCGACAGGGACCCTACAGTCTTCGCCCCATCCT
CAACTTCCTGCGACCAAAGAGTTGGATCCCAGGGGTGTCCACGGTTCAGCCTCCTCCA
TGAAGCCCAGTTCTATGGGCTCACTCCTCTGGTTCGTGCGCTGCAGCTTCGAGAGGAGTT
GGATCGATCTTCTGTGAAACGTCCTCTTCAATGGTTACCTGCCGCCACCAAGTGTCC
AGTGAAGCGGCGGAACCGGCACAGCCTAGTGGGGCCTCAGCAGCTAGGAGGACGGNCAGC
CCCTGTCCGACGGAGCAACACGATGCCCC

Sequence 1837

CGCGTCCGTTCTAGATCGCGAGCGGCCGCCCTTTTTTTTTTTTTATCTTTCTGTTTTTC
CACTAAAGCTCCGTTTTTCCATCTTCCATTACTCTCCCTTTCTGTGNACACTCCTGA
AGACAGGCATCCTCATAAGGTGTTCTGAATTAACCTTAGGGNGTTCTCAGGTACTTTGC
ATCTTTTTATATTTCTGTAAATTGNTAATTTCTAAGCTCCATGATTAAGAGAATTCAC
CACTAAAAAAAAAAAAAAGG

Sequence 1838

CGCGTCCGGGCTGGCGAGCGCCGNCGCCGGCGGAGACCGACNCTNGGCCAGAGCCNGCCC
GCGGCGCCCCGGGCTGGCCGGCTGCTTCCCGCCTCAGCNNGCGCCCCNGCCTCCGTGCG
CCGCAGACTTTGCCAGGCGGGCNGAAGCTGAACAAGAGGTCCCTCGGCCCTGCACGGTC
CGGCCGCGGTCCGGAGCCGANGCGCATGAGATTCCCAGGAAGCCATCACACTCCTTCCC
ACTGTGGTTTNGGGAGCATGAAGGCGTTG

Sequence 1839

GCCCCGCGTCCGTTTTATTTGCACTTTTATGGGTGACAGTTTTTACGCATAACCTTTGA
TAAATACACTCAAGTGACTTGGACTTAGATGCTTATCCTTACGTCCTTGGTACCTTTTT
TGTATTACAAACACTGCAATTTATAGATTACATTTGTAGGAAGTTATGCTTTTTCTGG
TTTTTGTTTTACTTTCAACCTAGGTTATAAGACTGTTATTCTATAGCTCCAACCTAAGGT
GCCTTTTTAATCCCTACAGTTTTATGGGTGTTATCAGTGCTGGAGAATCATGTAGTTAA
TCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGCGCCCAGCCTACATTCATTCTAAA
GTCTATGTAATGGTGGTCATTTTTCCCTTTTGAATACATTAATGGTTGATTTGGGGA
GGAAACTTATTCTGAATATTAACGGGTGGTGAAAAGGGGACAGTTTTTACCCTTAAAGT
GCAAAAGTGGAACATACAAAATAAGACTAAATTTTTNAGAGGTAACCTCAAGTAATTTTC

Sequence 1840

GTCCGGCCAGCTGATGCCGGGAGCTAACTACCGCGCCGGGGCCGGGGCCGGGGCCGGGGC
CCGACGTCCCCGCGGGGCCCGGGACCGNGAGGAGGACGGCGGGGGCCTGGAGCCCGCGGC
CGTGGCCCCGCGACCTATTGAGGGGCACATCTAACATGTCATTTGAGGAGCTGTTGGAATT
GCAGAGCCAAAGTGGGGACTAANACNTACAAACAATTGGTAGCTGGAAATAGTCCTAAGAA
ACAAGCTTCTAGACCACCTATCCAAAATGCATGTGTTGCANATAAGCACAGGCCTCTGGA
AATGTCANNCAAGATCCGAGTNCCATTTTTACGTCAGGTTGTTCCCATAGTAAAAAGGT
AGC

Sequence 1841

GCACCCGCTGNGAGAGGCGGTAGCGGCGGCGGCGGCGGTGGTATCGGCGGCAGCTGTGAG
GGGGTCCGGGAAGATGGTGCTGATCAAGGAATNCCGGGTGGTTTTGCCATGTTCTGTT
AGGAGTATCAGGTAGGGCNAGCTTTACTCTGTTTGAAGAAGCTTTGTAATGAATTGAGA
CTGGGTGGGTGGAGAAGGAATTGAAGNTCTTAAAGAATGAACCTATGAGAAGGATGGAG
AAAAGGGACAGTTTTACGCACAAAATCTACCTAAAGAGCAAAGTTGCCTGCATTCTGT
GAGGATGATTGCTCCCGAGGGCTCCCTTGGTGTTCATGAGAAAAGCCCTGNAAATGCCG
TACCCTACTGTAGNAACAATTNTNAACCGAAATGGAATATATTGAAANGAATGATTTTC

TABLE 1

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CTTCAATTNAAAAANTCCGAAAACAATNGGCANCCAAAACCCATNACTTTGGGGAACCATN
TAGGAAAAANNGTACCNATNGGGTTTTAGGATTCCCAAAACCACNATTGGGAAAAAAC
CTTG

Sequence 1842

CCCGCGTCCGGCGGAGAAGACTCAAAAGAGTGTGAAGATTGCTCCTGGAGCAGTTGTATG
TGTAGAAAAGTAAAATCAGAGGAGATGTAACCTACGACCTCGGACAGTGATCCACCCTAA
AGCAAGAATTATTGCGGAAGCCGGGCCAATAGTGATTGGCGAAGGGAACCTAATAGAAGA
ACAGGCCCTTATCATAAATTGCTTACCCAGATAATATCACTCCTGACACTTGAAGATCCA
GTAACCAANAACCCTATGATTCAATTGGCAACCAATAAATGTTGTTTGAAGTTGGGCTGGT
TTATTCCCAAAGGCCCATTTGAAAGATGGGGGAGGATAAAATAAATGGTCATTTGAAATCA
AAAAGTCAATTATTGTTAGGCCAGAAAATGGTAAATATTTGGACCAAGTTGGCTTGCATT
CATTTGGGNGGGCTTTGGTTGCAACCTTAAANTACATTTTGTAAAGTTCATCCCCTGGAGA
ATACCNGGTGGAATCCTTAAT

Sequence 1843

CGACCNCGCGTCCGGGGGATCTGTGCCTGGCATGGGGACGAGTTCTGGCCTCCTTAGGGT
ACGGGGAGAGCTTGGACTTTGGTCCTGACGTGGTGGACGACACACCTTCGAAGAGTGGAC
GTTACCTCAGTTGTCTGTTGTTAGAGTTTAAATCGATCACTCCTCTGTTTTGTTGTGTTCT
TTCCCAGAAATAACTTTACCAAAGGAAAGCTATTTTGCGAACTATCTTCTCCAGCGGAGA
TGGCCAATGTGCTTTGTAAACAGAGCCAGACTGGTTTCCTATCTCCAGGATTTTGCTCTT
TAGTTAAAAGGGTTGTCAATCCCAAAGCCTTTTCGACTGCAGGATCATCAGGTTCCGATG
AGTCTCATGTGGCTGCTGCACCTCCAGATATATGCTCTCGAACAGTGTGGCCTGATGAAA
CTATGGGACCCTTTGGAC

Sequence 1844

GGGACAGAGCCCCGATCCGCCAGCACCACCTGAGGATTNNGAAACCGCCCCAGCGATGG
AAGAGGGNCAGGAGCTGGAGAGGAAAGCAATAGANGAACTGCTTAAGGAGGCCAAAACGTG
GGAAACTAGAGCTGAAACAATGGGACCCATGGGTTGCTTATTACAGGGACAAGATACAA
ACTAAATCAGCCAAAATAAGACACAAAGATTAAAGCCA

Sequence 1845

CGTNCGGGACCCGNCACATGGGGCCGCTTCGCACCAAAACCCGTGAAGAAGGCGGCCCG
GGTCATCATAGAAAAGTACTACACGCGCCTGGGCAACGACTTNCACACGAACAAGCGCGT
GTGCGAGGAGATCGCCATTATCCCAGCAAAAAGCTCCNCAACAAGATAGCAGGTTTATG
TCACGCATCTTGATGAAGCGAATTTAGAGAAGGCCANTTAAGGAGGTATCTTCCATCA
AAGCTGCAGGNAGGAGTGANGAGAGNAAAGGAGTAGACAATTATGTTTCCTGAAGGTCTC
AGCCTTGGGATCAAGNGAGAATTATTNGAAAGNTAGATCCCTGNACAACTAAAGGAAATG
CTTGAAGNCTTTTGGACCTTCGNAGGTTCTTGTTCCAACCTTTCAAGGTTCACTTCAG
GCCTACAAGTTGGGGATTGAAATTTTCAAAAACGCCNTCGGGGGAACCCCTGTTTTGAAA
ATTTTTTTCTTGNTAGNTGCCTTGATTAATTTTT

Sequence 1846

GTCGACCCCGCGTCCGCAGCCTGGCCTGTGAGACCCTCGTGGACAACAACCTGCGGGTCA
CCAAGTGGAAACCGCAAGCTGGGCTGCAAGTGCCAGTACAAGCACATTGTGGACTGGTGTG
CTGTGTCCTCCCAACGACTTCAAGCCACAGGACTTCTCCGGCTGCAGCAAGTCTCCAGAC
CCACCTTCTTCGCCCCGGAAGTTCGAGTTCGACTGTGAACCAGGAGGTGCTGGAAATCCTGG
ACTTCCACCTGTATGGCAGCTACCCCCCGGCCAGCCAGCCCTCAAGGCCTACTGGGAGA
ACACCTACGACGCGGCTGATGGCCCCAGTGGGCTCAGTGATGTCATGCTCACTGCTTACA
CAGCCTTCGCCCGCCTCAAGCCTGCACCATGCCGCCACTGCTGCACCCCAATGGGCACC
CCACTCTGCAGGTTTGAAGCCAGGGGCTTTGCCGTCCAAGCGTGACCTGTATTTCTATG
ACGACCATTTT

Sequence 1847

TCCGCAAGAGTTATGCTTAAGACCAGCCAGCCTTGATAGTGGCAGAACATCCACTAGCAA
TAGCAATAATAATGCTTCACTACATGAAGTCAAAGCAGGTGCAGTTAATAACCAAAGCAG
GCCACAAAGCCACAGCAGTGGAGAATTTAGCCTGCTTCATGACCATGAGGCTTGGTCCAG

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CAGTGGTAGCAGTCCAATCCAGTACTTGAAAAGACAGACCAGATCAAGCCCAGTGCTCCA
GCACAAAATATCTGAAACACTGGAGAGTCGACATCACAAGATCAAACTGGTTCCCTGG
AAGTGAAAGTTGTTACTCTACAACAGTTTTTGGAAGAAAGCAATAAGCTTACCTCAAGTA
CAGATAAAGTCCTCAAGTCAAGAGAATCTTTAGATGAAGTAATGAAAAGTTTGGCTGNC
TCTTCTGACTTTTTGGGAAAAG

Sequence 1848

GCGTCCGCGCCGGGCGGCTCTAGCCGGTGAGGCCGGCGGGCTCTCTGTGGCTGCGGCTGG
GAAACCGCGCGGAGGAGGTGCCCCGGCGGGGACCAGCCCTGGTCCAGCGCCTCCCTCTCT
CAGCATGGACGAGGAGAGCCTGGAGTCGGCCTTGACAGCTACCGTGCGCAGCTGCAGCA
GGTGGAGCTGGCCTTGGGCGCCGGCCTGGATTGCTCTGAGCAGGCTGACCTGCGCCAGCT
GCAGGGGGACCTGAAGGAGCTCATCGAGCTCACCGAGGCCAGCCTGGTGTCTGTCAGGAA
GAGCAGGTTGTTGGCCGCGCTGGACGAAGAGCGCCCCGGGCCCGCCAGGAAGATGCTGA

Sequence 1849

AGTCACCACGCGTCCGGGTTGCACTCTTCCTATAGCCCAGAGGGCGAGAGGGCCTGTGGC
CTGGGGGAAGGAGGACGAGGTTCTGCCTGGATCCCAGCAGTAGGACGCTGTGCCATTTGG
GAACAAAGGAATAGTCTGCCTGGAATCCCTGCAGATCTTGGGGCCGAGGCCAGTCCAAC
CCTTGGAGCAGGAAGAAACGCAAGTTGTCAAGAACCAAGTCGAGCTGCCTCAGAGCCGG
CCCGCAGTAGCTGCAGACTCCGCCCCGCGACGTGTGCGCGCTTCTCTGGGCCAGAGCGAGC
CTGTTTTGTGCTCGGGTTAAGAGATTTGTCCCAGCTATACCATGGGCCCGCACTCGGNAA
AGCTGGCTTGGTGGCCGCTGGTGTGGTTATCGGGGCTGGTGCCTGCTACTGTGTATACA
GACTGCTTGGGGAAG

Sequence 1850

TCGACCNCGCGTCCGCTCAGGAACCTTNGAGAAGATNAGNNCCCCACTTAGATTNTTAAG
GAGTAAAAAGGGCTGAGTTATGCCTTTAAGNGCTGTCAAGAATCACTTGGGTTTGGGAC
ATTTGCTGGTGTAAATGCTAGATGCCACAGCANCATAATATTGNNCTTTGTCAAAGGTNG
GTAAATNCTNTGNTTNTCANCANCCCTTTCCCCA

Sequence 1851

AGTCACCACGCGTCCGCGGCTGGTGGTGGGCTCGGGCCGCTCGCCTTGCCCGTCTTCGCT
TCCGGAGGTGCTACTGCCGCCTCAGCGGCCCGGAGCGGGGGCGCCCGGGGGTCCCTCG
CCCCCGGCCACGGTCCCCGCGCCGGGGCTTCGCCGCCCCAGTGTCAGAGCTGGATCGTG
CGGACGCCTGGCTCCTCCGAAAAGCGCACGAGACAGCCTTCCTCTCCTGGTTCGCAATG
GCCTCCTGGCATCGGGCATCGGGGTATCTCCTCATGCAGAGTGACATGGGTGCGGAAG
CAGCATATGACCATCCCCGACCTTGCCCTGTTGCTACCCCTGCCTCTNCCGCAGGCTTC
TTNCTGCTGGGCGGCCTGTGCGTGGTGTGGGCGAAGCGCCTTGTAACCCGTGGGCCTGGCG
GCGCTTNGAGGACCATGCAGCTGACCTGGGGGGCCGCGCCTGGG

Sequence 1852

GCGTCCGCTCGCTGCAGCCCCGCTGGGCCACGGCACCCCTCGAGCGCCAGCCCCGCGCCC
CACCCGGGAGCAGCGAGCCACCGGCGCGCTCCCCAGGAGCCCTGCAGGCGCCGGCCCTG
GTCCAGCGCCTCCCTCTCTCAGCATGGACGAGGAGAGCCTGGAGTCGGCCTTGACAGCCT
ACCGTGCGCAGCTGCAGCAGGTGGAGCTGCCTTGGGCGCCGGCCTGGATTGCTCTGAGCA
GGCTGACCTGCGCCAGCTGCAGGGGGACCTGAAGGAGCTCATCGAGCTCACCGAGGCCAG
CCTGGTGTCTGTGAGGAAGAGCAGGTTGTTGGCCGCGCTGGACGAAGAGCGCCCGGGCCG
CCAGGAAGATGCTGAGTACCAGGCTTTCGGGAGGCCATCACTGAGGCGGTGGAGGCACC
AGCAGCGGCCCGTG

Sequence 1853

GCGCCCCGCGTCCGGAAATTGACCCCTAGAGAAAATCCCATTAACCTGTAAATTAGTGG
AATTAACAACAAATAAAGCATGTTTGAGACCTGGCAAAAATTCCTCTGGTAGTATTTATA
AATAGAGCTGCATGCCTCTAGTATGAAAACCGTATCAGTTGCAAGTGCCACTTCTACAAG
TACTCAGTTTACTCTTTGTATCAGTAACTTTAAAGGTTGGATGATCCTTGCTGGTTAA
GCTAAATCTCAACCTAGCAACTAAATGAAAATATTTAGAATCATCAGAATCTGAACAGAC
TAAATTTATCAGCGATAAGCAGAATCAAGCAGGGTATAAGTTTTATCTCAATTATTTGAA

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ATTGACTGGAGTTTTCTTAAAGTGTAAGCTGAAATTTGCTAACCATGTTTTTGATGAAC
CCACAGTGCAGCATTGGGTTGGGGTTTTAGATTTGAATGACTCTCTGCTATAATTATCAT
GACTTTGAAA

Sequence 1854

TGTCGACCCCGCGTCCGAACCTTTGGGAGACTCCAAGACAGCATGCTCCGAGGTCGGCGG
GGGTCTGGGTGGCCATGGAGGAGCCCCCTGTGCGAGAAGAGGAAGAGGAGGAGGGAGAGG
AGGACNAGGAGAGGGACGAGGTTGGGCCCGAGGGGGCGCTGGGCAAGAGCCCCTTCCAGC
TGACCGCCGAGGACGTGTATGACATCTCCTACCTGTTGGGCCGNGAGCTTATGGCCCTGG
GCAGCGACCCCCGGGTGACGCAGCTGCAGTTCAAAGTCGTCCGCGTCTGAGATGCTGG
AGGCGCTGGTGAATGAGGGCAGCCTGGCGCTGGAGGAGCTGAAGATGGATAGGGACCACC
TNANGAAGGAGGTGGAGGGGCTGCGGAGACAGAGCCCTCCGGCCAGCGGGGAGGTTGAAC
CTGGGCCCAAACAAAATGGTGGTT

Sequence 1855

TGTCTGCCGAACAACCTGAAAACCTATGCAGGTTATATCATTCCACCAGCACCACCAAGACC
TGATTTTTTGATGCTTCAAGGGGAGAAAACCTACATGAAGCTTGGNGAAGNGAGAAGGGTC
AAGTGACCGAANNGCAAGNAATTTACAAANAGAATGAAACNAGGCAACTGGAAAGCTCG
AAATANTTTTGGCAATTATTTAGAGGANAGCACCAGATTTGCCGTATTGCATNGGAANT
TGNTACCCNGTAGTTCCNTGTTGGANATGTCAACANTCCCCTANTNTTTTGNACGAAACT
AAGGAATTNTAGAAATTTTGAATNGTTCCTTTACTTGGGGGAAAATTATTNNAATTCC
AAAGGAATCTTTNAGAGNTTGNNTNGCCGTAANGGCAAGAGAGAGNCNATNTNGAAACT
NAGGAAGCGGAAACCTTTTGNAAANAACCTTTCTTTTTTA

Sequence 1856

GAGTCGACCNCGCGTCCGGCGGCGAGCGGGACTGGCCATTGGAGTGCTCCGCTGCGGAGG
GAGGGGACCCCGACTCGAGTAAGTTTGCAGAGAGCACTACGCAGTCAGTCGGGGGCGAGCAG
CAAGATCGGAAGCGAGCCGTACAGATCCCGGGCTCTCCGAACGCAACTTCGCCCTGCTTG
AGCGAGGCTGCGGTTTCCGAGGCCCTCTCCAGCCAAGGAAAAGCTACACAAAAGCCTGG
ATCACTCATNGAACCACCCCTGAAGCCAGTGAAGGCTCTCTCGCCTCGCCCTTGCCTT
CGTNTTGGAGTAGCGCCACCCCGGCTTCTGGGGACACAGGTTTGGCACCATGGGGCCCA
CCAGCGNCCCGCTGGGCAAGGCCACCGCAGGCTCGGTCTNTGACTACGNCAACTATGAT
ATTCATTGTCGGGCATTACAACCTACCGGGGAAAGCTGAATATCAG

Sequence 1857

CGTACGCCGAGCGCCGCTCCGGCTGCACCGCGCTCGCTCCGAGTTTCAGGCTCGTGCTAA
GCTAGCGCCGTCGTCTCTCCCTTCAGTCGCCATCATGATTATCTACCGGGACCTCATCA
GCCACGATGAGATGTTCTCCGACATCTACAAGATCCGGGAGATCGCGGACGGGTTGTGCC
TGGAGGTGGAGGGGAAGATGGTCAGTAGGACAGAAAGGTAACATTGATTGACTCGCTTCA
ATTGGGNGGGAAATGCCTCCGCTGAAAGGCCCCCGAGGGCGAAAGGGTACCCGAAAGNCA
CCANGTAATCACTTGGGTGTTCCGAATATTGGTTNATTGAAANCCATTCAACCCCTTGCTNA
GGGAAAAACAAAGGTTTTTTCNAACAAAAAAGAAAAAGCCCTTACAANGGAAAAGGTTAC
CATTCANANAAGAATTTAACATTTGGAAAATTTCAAATTCTAAATAGGGGGGAAAAACCT
TTTGGAAGGAAACCAGGANGTACCCAGGANAAAGGAAGGTAAAAA

Sequence 1858

GNGTCGACCCCGCGTCCGGTGGAGGGTCAGGAGCTGCCCCGGATCCTCTCCATGTAGTTG
CGAAGCTCCTCAGGGTCTTCAGCCCCATGTCTCACACACCCAGCGGATGTCTCTCTCG
CCTGCCACAAGGATGGACTGCACAGCAGGGGCCCTACAGGCTCCTCAGGTGACTGGGCT
GGAGGGCTGGCGCAATGTCACAACTCTACTCGCTTCCGCCGCCCCCAGCCTCCTTT
CGGGCCAGGGTGCTTGAGGAGCTGGTGGTGCCCCAGGAGGGCCAGGGGCCAGGGTAGGG
GCCTCCCCCTCCTCCCCACTCTCACAGGGGCAGCTCCCCTCCCCCTTGGCGGGCCAGGG
GACTGCCGGTCCAGCTGGCGGCTCAGTTCCTCCTGGTCAGTGCCAGCCAGACCCAGTTG
TGGGGCTGGGGGAGGTTGGGG

Sequence 1859

GCGCCCCGCGTCCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCTG

TABLE 1
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GAGCAGAAAGTGTTAGCCGGCCAGAGCTCCCAGACCCCTACCCACAGCCAGGCGGGACGCG
CACAGTCCCTCCACGCGGAAAGAAGTACCTTCGCCGGTCACCGGCTCCTGCAGGGTTGCA
NATATATACAGAGCTTCATAATCAGCCCAAGACCACATAGAGCAAACATGAATGATATTT
CCCAAAAGGCTGAGATTAAAGAAATGCTTGCTTCTGATGATGAGGANGATGTATCTTCTA
AAGTNGAAAAGGCTTATGTTCCAAAA

Sequence 1860

CGACCCCGCGTCCGACCCACTGAAGACGTCTGCGTGAGAATAGAGACCACCGAGGCCGAC
TCGCGGGCCGTTGCACCCACCGCCAAGGACAAAAGGAGCCCAGCGCTACTAGCTGCACCC
GATTCCTCCCANTGCTTANCATGAAGAAGGCCGAAATGGGACGATTCAGTATTTCCCGG
ATGAAGACAGCAGCAGCNTACAGTTTCCAACAGCGACTTCAACTACTTCTACCTCACC
AAGNCAAGCTTGCTCTGAAAAGCCANTTATGCCANAATGTAGGATCCTGAAAACCAAGA
AACTTTTTTACTTGAAATT

Sequence 1861

GCGTACGGCCTGTTGGGCTGTCTGGGGGGTGGCCATTTAGGGATCGTGGGGACGGGGTCC
ACCCANNCAAGAAAGAACAGGCCCGTCCACAGGCCCGGCTCTGGGCCACAGTGCCCCGG
AAGCAGGTGTGTCCAGAGTCANGCTTGAATGGCTCTCCCCACAACCACCCAGCNAGGCGC
TGGTGCNTCCTTCTGCCTCATGGGACCAGTCCAGCTTNCAGCCGCTCTGGGCTCGAGGGT
NGGTACTGACCACTTTCCTTCTTGAGNTGGGAGCATTCTCTGGGGGAGNCTCTTCCAGT
GGGCACCTGCCTGGGACNCTTGCCACCGGTTTTCTTGTAATAATCAGGAATACCGGTGG
CTTTTAGTAAAAGGCAAGACCANAGNCGCCTTNCGTTGGGCAGGGGAAAAGCCAAGCGTG
CCGGNNGGNAAGGTCACTGGAAAAAGGTGGCTTGCCCTAAGGGGGAAGTTTGGGAAAATA
GTCCCCCTGTTCCAAGAANTGCCTTTGAATTTTTAAAAACATTTTGGCT

Sequence 1862

CAATNTACAACGCCATGTNCACCCANATGTTCCAGACTAAGCGCTGNTTTCGACTGGCCC
CCACCTTNAGCAACCTGCTCCTGCAGCCNACCACCAACCCTCATACCTCGGNCAGCCACA
GGCCTTGCGGTCAATGGGGATGTAGACAAGCCTTCAGAGCCAGCCTCTGAGGAGGGCTCT
GAGTNGGAGGGGAGTGAGTCCAGTGGACGCTCCTGTGNGAATGAGCGCAGCATCCANGAG
AAGCTTNAGGTCCTGATGGCCNAAGGNNTGCTNCCTTGCTGTGAAAGTCTTNTGGACTG
GCTTCNGACCAAC

Sequence 1863

NGGAGTCGACCCACGCGTCCGGCCGCCAGAACACAGGTGTCGTGAAAACCTACCCCTAAAA
GCCAAAATGGGAAAGGAAAAGACTCATATCAACATTGTTGTCATTGGACACGTAGATTC
GGGCAAGTCCACCACTACTGGCCATCTGATCTATAAATGCGGTGGCATCCGACAAAAGAA
CCATTGAAAAATTTGAGAAGGAGGCTGCTGANATGGGAAAGGGCTCCTTCAAGNTATGCC
TGGGTCTTGGATAAACTTGAAAGCNTGAGCCGTGAAACCGTTGGGTATCACCATCTGGAT
ATTCTTCCTTTGTGGGGAAATTTTGGAGNACCAGGCAAGTTACCTATTGGTGGACTTATT
CATTTGGATGGCCNCCAAGGGACCAAGGAGGACCTTTTATCAAAAAAACANTGATTA
CAGGNGGACATCCTNNAGGCCTGGACTGGTGGCTGGTCCTGNATTGGTTGCTGGCTGGGT
GGTTTGGATGGAATTTGAAGGCCTGGGNTATNCTTCCAAAAGAAAT

Sequence 1864

GCGTCCGATGGCGTGNTGTCTCACAGAAAGTTCTCCGCTCCCAGACATGGGTCCCTCGGC
TTCCTGCCTCGGAAGCGCAGCAGCAGGCATCGTGGGAAGGTGAAGAGCTTCCCTAAGGAT
GACCCATCCAAGCCGNTNACCTCACAAGCCTTCTGGGATACAAGGCTGGCATGACTCA
CATCGTGCGGGAAGTCGACAGGCCGGGATCCAAGGTGAACAAGAAGGAGGTGGTGGAGGC
CTGTGACCATTTGTAAAGACACCAACCATGGTTGGGTTGTGNGGCAATTGGTGGGCCTA
CCGTTGGGAAAACCCCTCGAGGCNCTCCGGTACCTTCAAGACTTGTCTTTGCTGGAGCA
CAATCAGTTGAATGAAATGGCAAGAAGGGCGGTTTNTTATTAAGTAATTTGGCCATTAA
AAATTCTAANGAAAGGAAAGGCCCTTTACCAAAGTTACCTGCAAGGAAAATGG

Sequence 1865

CCGGCCGGGCTGGGTCCAGCACNTGACCCAGCTGCACTGCTGTACAGGGCTGCNCGTC
ACCCGAAGTCAGAAACGTGGCATCTCATCGGAAGAGGAGGAAGGAGAGGTAGACAGTGAA

TABLE 1
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GTAGAGCTGACATCNAGCCAGAGGTTGGCCTCAGAGCCTGAACATGCGCCAGTCACTATC
TACCTTCAGCTCAGNAGAATCCATCAGATGGGGAGGAAGGCACAGCTAGTGAACCCTTCC
CCCAGTGGCCACACCTGGAAGTTGGCTAGCACCAACACNTGATGAGTCCGGGCNCAGNAT
GAAGCNGNGTTCTGATGAACATGTTGACTCCCAAGGGGCTCAAGAAAATCCCCACNTGGG
ACNCCACTCTCCTTCAGGAGGGTCATACCCTGGGCCCTGGAACCCAGCTCCCTGGCCCA

Sequence 1866

TTGCGCCCCCGCCGGTGAGCGCGGGGAGCGCCGCAAGCCCAACGCCGGGGGAGCCCCGN
TCCGGTGCGCCGCCGCGGAGGCCTCGCCGGTGCGAGAAAAGGAGAAGAAGGACAAGGA
GCGGGAAAACGAGAAGGAGAAGAGTGCCCTAGCCCGGAGCGCAGCCTCAAGAAGCGCCA
GTCGCTGCCCCGCTCCCCACGTGCCCGCCTCTCTGCCAGCACCGCCTCTGAGCTCAGCCC
CAAATCCAAGGCCAGGCCATCCTCTCCCTCCACATCCTGGCACAGGCCTGCCTCCCCCTG
CCCCAGCCCAGGGCCAGGCCACACTCTGCCTCCAAAGCCACCGTCCCCCGAGGCACCA
TGCTCCCCCAAGGGGCGGGTTCCGAGGAAGGAGGAGGCAAGGAGAGCCCCAGCGCCGC
AGGGCCCGAGGACAAGAGCCAGAGCAAGCGCAGGGCCAGTAACGAGAAGGAGTCAGCAGG
CCCAGCCTTACCGGCACCTTTGGCGGNGCCTTGGCCAACCCAAGCCCGGCCAAAAGGAG
CAAGCCCCCGNGGAGACCCCTTACAGACCTGGTTTCTTTGACTTAACCCCAAGCCCTTGT
TCCCCGGTGACCCCTAGCAAANCAATGGGCCGNGNACCACAAGANCGAGAAGAAGCCCTT
GGNTNTTGGCTTGAAAGCGGCGCCAGGNCCCCGGGAACAACCGGAAGCCCCANGAGCAAGA
ACCGANGCTTTANGCAAAAAAGGACAAAGCCAATTGCAAAAGGACAACCTGCACCGGAAG
GCCCAGGC

Sequence 1867

CCCCGCGTCCGTTTAAGAGTTGCATATTTTACTTTATTTTTATTAATTAAGCTACAG
TCTGGCAGCGATTCCAGAACAGGGTAAGGAGGTTCCCTCACAGGGGTGAGAGAAGAGCGGA
GAAAGACAGACTGACGGAGACTGAGACACAGGAGAGAAAGGACAAGGTTAAGGGAGAAGT
GTATCTGATGAACACACACAGCCGGCTCCATGGCGGGTGACGGGGAGCTCACATCAGCCC
AATTTCTCTCCCCGGCACCCGAAGTTCAGCGGTGGAGCAGTATGTGGGGGCGGTTAGGA
ATCAAGAGACCCTCCCTTCCCCACCCTAGGTCCTTTCTCGGCTTGGTCGTGGAGCACAGC
ACATACCAGAAAAAGCCAAGGGCAATGGAGGGGCGAGGAAAACCGGGAGTATATGTACAG
GGGAGGGGAGAACAGAGCCTTGGAGGTGCGCCTCTGCCAGAAGGGAAGTGGCTCACACTT
GCATTTGNAACACTTGGCCAGTGGGGGATGGGGGAAAGGAATTGCCCTTCTTTTGG

Sequence 1868

CCNCGCGTCCGCACACCCTTCTGTACTCAGTCCTCAGTTTGCCCTGGTGAGAGAGCAGC
CTCCTCCCGTGTGCTCTGCCAGCTGGACCCAGACTGGCCATATTACAGTGAGACCAAAA
AGATGGAGGTGGGGAGGTAGCTCTGAGGTCTGGGAAACCATTCCAGCTCCTGCCAGTTTT
AATTGTGTTTAATTCTGGCACAGTTGTCTGGAAATGCCTTTTTCTCTTGCCTGGGAA
CCACTAGAAGGGGATGTTGTCTGTGTTGGCCAGGGCCATGCAAATCAACATCTTGTTC
TGCCCTTCCCCCGTGTAGCTGAGGCTAGGTGTTGGCATTACCCAGTGCTTGTCTTCAGA
GAGCAAAAGCACTGCTCGTCATGTCTGAAATTTAGTGAGTGAGCTCACCACTAGGCTGG
TGTTTCCTGCCCGTGGCTGCACATTGGAAGCACCGGGGCACTTTGAGAACTACAGATGCC
TGGGTCCCAGAGCATCTAAGGTGCTCTAGGGTGTGTCCAGGACACAAGCCCTGGTTGAGG
ACCACTGCTATATTGTATGGCCTCTTTTAAAAAGTTAATTTTACTTGGAATGATTTCA
AAGCTACAGAAAAGTTGCAAGAATAAAAACTGTACAAATGAGGCTTAAATATTCTTTGGC
CAAATCACCTATTAACATTTCTGTTCCAAAAA

Sequence 1869

GGGCAGCGCCTCCGACATGAAGGCTGAGCTGTGCAACTTATTAGCGACCTGGGCGAGCT
CAGCTTCGGCAACGACGTGCGCACCCCTGCAGGCCGACTTGCGGGTGACGCGCCTGCTGTC
AGGGACAGCACGGGCAGCGAGAGCTCCATCGAGGGCGGGGGCCCTGACGCCACCTCCGC
CAGCGCGGGGACTCGTCCCGCCAGGCCGAGCGGCCAGTGACAGACGAGCCCCACTCGGG
CTGAGCTCCTCGCGCGTCCCGGCGCTCCACCGTGGCTACCCATCCGTGGTCCCGACAA
CCTCCCTGTCCCTTGGCCCGCCCAAGGAGGAAATGGGGCATTGGGGCCAGACCT
ACACTTGGAGCCCAGGTCCAAGCGTTCCCGACCGCTTCCCTACTNCCGNGNCCCGCTC

TABLE 1
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CCGCCCCAAGAACTTTTGGCTTTTTTGC GCGTGGGGATGCGGGGAGATTTGAGANGGGNA
AACCCCGCCAGGAAGGAAGAGAAGAGGCACCCCTTTGGGAATGCCGGTGAAGGGAAGGT
TGGCTGAAGTTCCTAAGTTTAAGGCCTAAGGTGCCTTGGNCAGGTTTCCTGTTTGTGGGG
GAAACTTGGGNCTTGAGGAGGANGGGGTAAATTTCTTCTTCCAACCCCTGGGAAGCGGG
CCTTGCCTTGGANNTGAAATTTAANTNAAAAAAAAAAAAA

Sequence 1870

TCTTCATCATGGGTGCCAGCATCCACCTGGTGGGTGACTCTGTCAACCACCGCCTGCTCT
TCAGTGGCTACNAGCACCACCTGTCTGTCCGTGAGAACCCCATCATCAAGAATCTCAAGC
CGGAGACGCTGATCGACTCCTTTGAGCTGCTCTACTATTATGATGAGTACCTGGGTCACT
GCATGTGGTACATCCCCTTCTTCTCATCTCTTTCATGTACTTCAGCGGCTGCTTTACTG
CCTCTAAAGCTGAGAGCTTGATTCCAGGGCCTGCCCTGCTCCTGGTGGCACCCAGTGGCC
TGTACTACTGGTACCTGGTCACCGAGGGCCAGATCTTCATCCTCTTCATCTTCACCTTCT
TCGCCATGCTGGCCCTCGTCTCGCACCAGAAGCGCAAGCGCCTCTTCTGGACAGCAACG
GCCTCTTCTCTTCTCCTCCTCGCACTGACCCTTTGCTTGTGGCGCTCTGGGTCGCCT
GGCTGTGGAATGACCCTGTTCTCAAGAAGAAAGTACCCGGGTGTCATCTACGTCTGAGC
CCTG

Sequence 1871

CCGCGTCCGGTTTGTTCTGTTATAGGTTTAATAAGTCTATTGAGGAAGACCTACTCCTGTG
TGAATCTTTGCAAAGTAATGCTACCGGTGAAGAAATATTCAACTGNATCAACAGTTTTAT
GCAGAAACATGAAATTGAATGGGAAAAATGTGTTGATGTTTGTAGTGATGCTTCTAGGGC
AGTGGATGGGAAATTTGCCGAAGCTGTCACCTTAATAAAATATGTGGCTCCCGAAAGCAC
CAGTAGTCACTGCCTATTATACAGACATGCACTGGCAGTTAAAATAATGCCTACATCTCT
AAAAATGTGCTAGACCAGGCAGTACAAATCATCAATTATATTAAAGCTCGACCACATCA
ATCCAGACTATTAATAATTTTATGTGAGGAAATGGGTGCTCAGCACACAGCACTTCTTCT
AAATACAGAGGTGAGGTGGCTTTCTCGAGGTAAAGTTCTTGTAAAGACTTTTTGAACCTCG
TCGTGAACCTTTTGGTTTTCATGGATTCTGGCTTTTCGACTATCTTGATTGGTTAACAAA
TTCATCTTGGCTGCTAAGACTTGCATATCTTGCAATATTTTTACTAAATTAAATGAAA
GTTAATTTGTCAATGCCAAGGNAAAAATGTGACCCGTTTTACNAGTATTTGATAAAATGT
CGTCATTGGTAAGAAAATTGGAAT

Sequence 1872

TCGACCCACGCGTCCGCGGACGCGTGGGTGTGACTGGCACCCAATGCCATGCCTTTATGG
TCACTTGGTAGTATAAAGGCATGGCATTGTTGTGACTGGCACCCAATGTTTGATTTTTT
TTTTAAACTATCCAATTAATAAAGGTCTGGGAGTGTTCTGTTTCCATTCTTTAATA
CTCACCTCCTCCAGACTTTCTACACCTGTTGCACCTCAGGCAGAGGATGTTCTGGACCT
CCCCCTCTTGGTCCCTACTAGAGACCTCTCAACAGATCTGTGGGCCAGTCATTGGGTTT
TATCAGTGCTTAATGTGAACCTAAGTTTTTTACTTCCACAGAATACAAGCCACTACCTTCT
GACCTCCCCACCCCCACCAACCCCATCTTTTAATATGCTGTGGGGCATAGAACTCCGG
AATGACCAGCATGATATTTTCAGAGTCTTGTCCCGGGGTATTAGCACCTCTTTTTGAAC
AGGGAATTGATTCAAGATTGGACATGGTCTCCTCTGATTATCAGGTACTGGGGCTGAGGG
CATTAATAATAGTAAGCCTCCCTCTCGTCCCCTGCCTCAAGAAATTGCCTCTTATTTATC
AACATCTTTTTCTC

Sequence 1873

CCNCGCGTCCGGTGTTCTCCTGAGAATTAGTGGTCAGACATTGCAGAGGGCATCAGAA
GCGGGTAGATGAAATAGCGAAAGGAAACAGGCTAGCAGACCAAAGAGCTAAGTCAGCAGT
AAGAAGGCCCAAGGTCCCAAAACACTTGAGGCCCTCTGATTGGGAGGGCTACATAAG
GGAAATAAAGCTCAGTATTCCCCTACAGAGATAGAATGGGCCACCTCTCGAGGTATACT
TTTCAACCTCAGGATGGTTACAATCAGAAGATTGCAAAGTACGCTTGCCAGCCTCCAGC
CAATGGAAGATTCTTAAATCCTCCACTGAGCCTTTCACTTAGGAAAGCATAAGACATCA
GTGCATCCAAAGATTGTTCTCAGGAGAAATCTACTAAAAATGGTCAAATAGGTTGTTAA
TACTCGTGAAACCTCTTAAAAATAATCCCTTTAACAGATGACTTCTCCCCACCACAAT
CAAAGGA

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Sequence 1874

ACGCGTCCGATGACCAGGCTGCCCCGCTCCTGGTTCTGCCCAAGTTCTCCCTGGAGACT
GAAGTCGACCTCAGGAAGCCCCTAGAGAACCTGGGAATGACCGACATGTTGAGACAGTTT
CAGGCTGACTTCACGAGTCTTTCAGACCAAGAGCCTCTCCACGTCGCGCAGGCGCTGCAG
AAAGTGAAGATCGAGGTGAACGAGAGTGGCACGGTGGCCTCCTCATCCACAGCTGTCATA
GTCTCAGCCCGCATGGCCCCGAGGAGATCATCATGGACAGACCCTTCCTCTTTGTGGTC
CGGCACAACCCACAGGTGAGCCTGGAACCCATCACGTTCCACATCCTCCCACCCATTCT
TTCTCTCAGGAAGTAGTCCCGACAGATGCAGACATCCCTCTATCCCTGAGAGGGCTCTGG
GCAGGGAACCCATAACCCTACCCTGCTTCCTGTCCCAAGAGGAGGC

Sequence 1875

AGTCGACCCACGCGTCCGCCCACGCGTCCGCTTCTTCTGGGCACTGACTGCCCTTCTGG
TCGCTTCAGCTGCTGCCTTCCAGGGTCTTCTGCTGCTGTTGCCGCCACCACCATCTGTAC
CCACAGGGGAGTTAGGATCAGGCCTCCAGGTGGGAGCCCCAGGAGCAGAGGAAGAGGTGG
AAGAGTCCTCACCCTGCAAGAGCCACCAAGCCAGGCAGCAGGCACCACCCCTGGTCCAG
ACCTAAGGCCTATCAGCTTCTATCAGCCCGCAGTGCCTGCCTGCTGGGCCTGTTGGCCG
CCACCAACGCGCTGACCAATGGCGTGTCTGCCCTGCCGTGCAGAGCTTTCTGCTTACCCT
ACGGGCGTCTGGCCTACCACCTGGCTGTGGTGTCTGGGCAGTGCTGCCAATCCCTGGCCT
GCTTCTGGCCATGGGTGTGCTGTGCAGGTACACAAGGACCCCCAGCCCTGTGCGGGTG
GAACTCA

Sequence 1876

TCGACCNCGCGTCCGGTCTTCGAGGTGGCCCTCGGGCCCCGAGCCGCTGGGTAAGGGTG
ATGCCTAGCCTGGCTTATTGCACCTTCCTTTGGCGGTTGGCTTGGNGCGAATCTTCATC
TTAGCACATTTCCCTCACCAGGTGCTGGCTGGCCTAATAACTGGCGCTGTCCTGGGCTGG
CTGATGACTCCCCGAGTGCCTATGGAGCGGGAGCTAAGCTTCTATGGGTTGACTGCACTG
GCCCTCATGCTAGGCACCAGCCTCATCTATTGGACCCTCTTACACTGGGCCTGGATCTT
TCTTGGTCCATCAGCCTAGCCTTCAAGTGGTGTGAGCGGCCTGAGTGGATACACGTGGAT
AGCCGGCCCTTTGCCTCCCTGAGCCGTGACTCAGGGGCTGCCCTGGGCCTGGGCATTGCC
TTGCACTCTCCCTGCTATGCCAGGTGCCGTCCGGCACAGCTGGGGAA

Sequence 1877

ACCCGCGTCCGCCCTTAAGAGACAATGATTGAGAAAGAGCCATGTGGCTTGGCTCTAGA
AACCTCATTATCATTAGGACCATCAGATTTTATAGTTAAGCTGCTATTGAATTAATAAAAT
CCCAATGAAGCAGAGTTATAGGGATAGATTTATAGCTGGCAGAGTGGTATCAAAGGAGAA
AAACAGTGAAAAAGCCAATTTCACTGGTTCGTTCAATCCAGCTTGTGCTAATATTAGTT
ACCCTTGTTTTAAATGACAGAGAGTGGCTGGAATCTGTAGCTAGGGAGGGGCAACACTGT
TAGATGTGAGGAAAGGAAGTGCCAAAAATGCCTGGACAGATGGCTTGTCCCAAGGCCAGG
ACACACACTTTAAAATCCAACATTCACCTAAGCAAGTAATTCTTAAAGATCTTACAGAAA
CGCAGAGTCAATTCAGGTTTATAAAGGAAGGCTTNAGGGGAGAGAGGAAGGCCTGGGGGG
CCTGGACGAAAGAGGCCTAGGACCTGAAGAGACTCCAGCGAGTCTTCGGGAAGC

Sequence 1878

AGTCGACCACGCGTCCGCAGCATCGTCCGAGACTTCCAGACTCCCGGCCAGCCATCGAG
GACCTCAAGTACTGCCTGGAGAGGACGGACCAGAGGCAGCAGCTGCTCGTGTCCCTCAAG
GCTGCCCTGGAGACTCGGCTCCTGCATCCAGGCGTCAACACGTGTGACATCATCACCCTC
TATATCTCTGCCATCAAGGCGCTGCGCGTGTGGACCCTTCCATGGTCATCCTGGAGGTG
GCCTGTGAGCCTATCCGCCGCTACCTGAGGACGCGGGAGGACACAGTGCGGCAGATTGTG
GCTGGGCTGACGGGGGACTCGGACGGGACAGGGGACTGGGCTGTTGAAGCTGTCCAAGAC
CGACCCGGCGAGCCTGGAGACAGGCCAGGACAGTGAGGGATGACTCAGGCGAGCCAGAGG
ACCTGGGGTCCCGGACCCTGTGGATGCCCGATCAGGGGAAAGTCGAGCTCCAGCC

Sequence 1879

GTCCGCACAATTGAAAAGTGGGAAAAATAATCTCGTGGTTCGGTTTGTTAGTTTGAGACG
CAGTCTCACTCTGTGCCCCAGGCTAGAGTACGGTGGCCCAATCTCAGCTCACTGCAACCT
CCAACCTCCCAGGTTCAAGCAATTCTTGCCTCAGCCTCCCGGGGTAAGTGGGGATTAC

TABLE 1

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AGGCGCGCACCACCACGCCAGCTAATTTTTGTGTTTTAGTAGAGATGAGATTTTGCCA
TGTTGGCCAGGTGGTCTTGAACCTCTGACCTCAAGTGATCCACCCACCTCGGCCTCCCA
AAGTGCTGGGATTACAGGTGTGAGCCACCGTATCTGGCTCTCATATTTTTATATACAGA
TTGAATATCCCTAATTTGAAAACCTGAAATCTGAAATCTTCCAAAATCCAAAACTTTTG
AGCAGTTACATGATATTTGAATGAACTGCTCATAAGAA

Sequence 1880

GAGGAAACCAAAGTGCTCTGTATCCTCCAGTCTCCGCGCCTNCACCCAGCTCAGGAACCC
GCGAACCCCTCTCTTGACCACTATGAGCCTCCCGTCCAGCCGCGCGGCCCGTGNCCGGGT
CCTTCGGGCTCCTTGTTGCGCGCTGNTCGCGCTGCTGCTCCTGCTTGACGCCGCCGGGG
CCCCTCGCCAGCTGCTGGGTCTGTCTGTCTGTCTGCTGACAGAGCTGCGNTGCACN.TTGT
TAACGCGTTTACGCTGAGAGTAAACCCCAAAACCGATTGGTAAACTGCAGGTTGTTTCC
CCGCAGGCCTCGCAGTGCTCCAAGGTGGGAAAGATGGTANGCTCTCCCTTGAAAGAACCG
GGTAAGCANAGTTTATGTCTGNNACCCCGGAANGCCCCCTTTTTCTTAAAGGAAAAGG
TGCATCCCAANNAAAAATTTGGGACCAGNTGGGGAAAACCAAGGAAAAAA

Sequence 1881

GCGTCCGCCCTGGCTCCTCCAGCAAGACCTCGTCTTGCTTGCTGCTCAGATGCTGGT
CATCCTGGGCATGTCCCAAGTGTGGACTCTGGACTGGGAAGGGGGCAGGCCCTTTGGAC
CTGCAGTTGGCCTCAGCAGAAGGCCTTGCCCTTGTTGTATGTGACTCCATATCCCGGGAGCA
GTTGACCTTTGCCAAACACTTTACAGTTCTGGAGGAGGAGGTAACATAGATGCCTGGGGC
TGATGGTGGGGCCATACCCATGTGTGCGCTCTCACTCTGGCAGCCTCAGAGGCCCTTG
TGCTGGCTCCCATCTCCCTCCCATTTGCAGACCAGGAAGGAAGAGCAAGCTGTACAAAGG
GAAGCAGAGCCTGGGGTGGGGTGTGAGCAGGGTGACCCCTCATCTGAAAGGCCCAACCA
GGGGGGAAGCACCAGCCTTAGTGACGCCCTCTGACCCACCTTAGAATGGAAAGCCTT
CACCTGCAGCCCAGGCCTTCTCCCCG

Sequence 1882

AGTCGCCCCGCGTCCGGTGATTCCAGGGTGCAGAAGGGATTTCATATCCCAGAACGCTTT
AAGTGACACCTGCAGGATAAAGAGATACCGGTTACATTATTAATGATTCTAGGGATT
ACTGGGGGATATTTTTGTTGCTTTACTTTTCATGGTTAGAGCTACAAAGAACAAGTGATT
TTTTTTTTTTCTCCCTTCCCATTCAGAAACATTATACATTGGGCCATTTTTCTTTCTC
CCAAAGAAGATTATGGATAGTCAGACTGAACTGTGTGCAACAGGAAAAAGTCAAAAGGGA
AAAGGCAGCTGATGAGGTTTATGTTTACATGTTCTACATCATGCAGAGTAGCTTGAATC
TAGTCTGGAGAAAACCTGGATCAAGATTCTAGCCCACTGGAGTTGCAAGGAATGAGAGGCA
AAAATTCTAAAGATTGGGTTATTTTTCAACTTGGGGGACAGAGAGAAATGGAGAGCAG
GAATTACAGTTCCAACAAACATCATGATAGTC

Sequence 1883

CCACGCGTCCGACTAGTTCTAGATCGCGAGCGGCGCCCTTTTTTTNTTTTTNNCACGCTT
AATTCACTTTATTTTTCTTGNATAAAAACCTATGTTGTAGNCACAGNTGGGGCCTGAGT
CCGNTGCACGGAGACTCTGGTGTGGGTCTTGACGAGGTGGTCAAGAGNAACCTCTNGATA
GGGAGACTTGGGTGAATACANTNTCCTTCANAGGTCCGGGGNGTTCATGGTATGCTGTA
NGGTCCTTAAAAAATGGG

Sequence 1884

GTCCGAAAAAATGATAATGTGCATAAAATTCAACCCAGCTTTCAAAGTCCAGTCAAAATA
TCAGAAATCATGAGGTCCAATGGATTTTGTAGCAAATACCGAAACAATAGTTATTGAC
CACAGTATACAAATGGAAGAGACCAGCACCTGGGCGTGGACCCAACAGAGCATTATTT
GAGAATGGCAGTGAGTTTCCCTCAGAGCTGGAGGACGGGACGACCCAGCAGCCTACGT
ACCAACCTGTCTATTACCACTGGTCCCCTTCGAGACAGACATTTGGGACTGAACCTCT
CTATCAGGCCTCCCCGCTCAAGCTGTTCACTGCC

Sequence 1885

CGCGTCCGCACAACAAGACACTCCAATTGTGATTTGAGTTGAGGATCTCTGCCTGCCTTC
CTGCCGTCTTCTTCTTCCCCGATCCATGCTACTTTAGGGGCTGCGGAGAGCAGCAGC
AGAGCTGAGTAATGATACAGGGCACCACGGAGAGAAAAGTAGAACCATTTCACTCTGGGA

TABLE 1
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'AGATGGGGTATTTCCCACTTCCAGCAACGAAATAACAAATGAAAAGTTGCATACTTATTG
ATGTATTGTATGAGCCAGTAGCATTTTATGTACAAAACAGAAGTCAATGCAACAGTATGT
ATGTGTGCCTGTGTGTGTATAAAAATAACCATTGAAGCTAACTTGCTAATGTACTTAGGC
AAGCCACTTCCCATCTCTGGGCCTCGTCTTTCCTCCCTCTAAAATCAAAGAGCTGAATTA
TGTGATCCTTGAGGTCTCTTCCACTTATAATACCAACTGTCTTGTGCACTGGCAAATTA
TATTGGCCTCTCCTTATGTGGTGGGTTTTTTTTGGGAGGGNCATAGTTNCTTATACACAGG
ACACCTGCATNATCNAAGGGCTTTTTTTCTAAAAAAAAAAAAATG

Sequence 1886

CGTCCGCTCCTGAGTAGCTGGGATGACAGGCGTGACCTGGCAGCTTTTTCAAAGTGTTG
ATGGTAATCTGAGGCAATCTAAGGGAGTCATTTTTAAGTGACTTTATACAGAAAAGATTG
GTAAGAGCCAAGGGGTAGAAGTGGCATAAATGTCTAAAGCAGGGAAGTGACAGGGACTTT
CATTGTTCTTGGCTGAGGAGAAGCGGGAGTGGCTGATGGAAGCACCTAAATGATGCCTTT
GTCTGTGGGAAGGCAAATGATGCCCCAGAGCTCTAACCAGGTTTTGCAGCCGCCGAAA
AACAGGAAAGTTGGGAAGCGGGGGTAGGACTACACTGAATCATTAAACAGTGCTGTAACT
ACCCATGTGGCATTAAACAATGACCTTTGGGGGAGTTTTCTAAACGATCACTCTGGA

Sequence 1887

CGTCAAACACCCGAGGCTGTCGATTTTCATCATCAAAGAAATCAAGACGATAAGGGCAGC
TCACTCCCCATCGGGAAGAGATCCAGCAACGCGCGCGCTGGCGTATTCGCCGTGCTCC
ATCACCTGGTCAACATGGCGATAACCGGCGCTGTCCAGTTGGGTTGTAATGCATCTCGT
GACAGGCGCTGACCTTTTTTCATCACCAGCGCATGACCGTGGAGAAAACCTGTGTGGGCAA
ACGCGCTGCATAAGCGTATTCACCGGAACAATCAGTACGCCACGCTGCATCGTCGGTAGC
TGGTAAAGGGTGGAAGGCGCGAGGAGATAATGTCCTGATGAGGCGAAAAACCTGTCGTAG
GGAAGAGTTTCCAGTCCGCCAGATTTCATCACCATTGATCGGTAACTGGCTGATTCA
TCATGCAAACGCAGAGCATTTTGCATATCTGGTGCAATGAGTACCACCGGACCGGCGTGA
CGTTCGGCA

Sequence 1888

CGCGTCCGTTTATTTTTATGCCCTTTTTGTGGATAAGATTCTTTAGATAAAATCTAAAG
AATTTAAGTGACTTTCTCCAGGTCATGAAGATTCAATGGGTAGAATTGAATCAGAATTG
AAATGTTCCAGATTCTATTCTTGTGTGTGTTGATAAAATTCATGGCTTCCAAAGTAAC
TGAACACTTCTTTGGGCCCTTGAGGGGAAAATCCATATTTTACTAATTACACTTTTTT
TTTTAGACATCTGGCAGTTCTTTGAACCTTAAACATATTCTCATGGCCATAGTTCCAAAT
AAGCCCAGCGCAGTTGCTAAAAATCTTGCTGCACTGTTGAATACTAATAATGCAACATT
ATTGGATGTTTTGCATTTGATGACCTTCATGATTCATTTATAAGTCTTTGTAAGTGCT
TAAGTGACCCCTCACTAGTGAAAATAATAAATGTTCTATATCATTTATTATTATTGTG
TATTCTCTACATGATATATTTTTT

Sequence 1889

CCGCGTCCGGGAGGATGGACGTACTGGTGTCTGAGTGCTCCGCGCGGCTGCTGCAGCAGG
AAGAAGAGATTAAATCTCTGACTGCTGAAATTGACCCGGTTGAAAACTGTGGCTGTTA
GGAGCTTCTCCAAATTTGGAGCAGTTACAAGAAGAAAATTTAAATAAAGTATCGACTGA
ATATTCTTCGAAAGAGTCTTCAGGCAGAAAGGAACAAACCAACTAAAAATATGATTAACA
TTATTAGCCGCTACAAGAGGTCTTTGGTCATGCAATTAAGGCTGCATATCCAGATTTGG
AAAATCCTCCTCTGCTAGTGACACCAAGTCAGCAGGCCAAGTTTGGGACTATCAGTGTA
ATAGTGCTATGGGTATTTCTCAGATGCTCAAAACCAAGGAACAGAAAGTTAATCCAAGAG
AAATTGCTGAAAACATTACCAAACACCTCCAGACAATGAATGTATTGAAAAAGTTGAAA
TTGCTGGTCTGGTTTTATTAATGTCCACTTAAGAAAGGA

Sequence 1890

CGCCCCGCGTCCGCTAATTATAAGCTTTACAAGTATTTATTTTATAAGGCTTAGACAGAA
TTATTGGAGTTTTAAATTAAGTGTATTGGAAAAGAAAGGATGGTATGTGTATGAAATGTT
AAGATCCTACGCAACACTGCTATTTTTTCTTTAATATTTGTGCTGCATAACAAAAGCC
ACTAGACTGTTACTGTCTGTCTGTCCATGTGTTAACAGCATTCTTAATGATGTATATA
TGGAGTGGTCTTCAATCATAGTGAAGAATTTAAAGAGAAAAGTCAATTGTATTGGCATT

TABLE 1

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TAATAAGAACAAAATTAGTTCGTCTAAGGGGACTGGCTGGCCACATATTTGTTCCCTTGCC
CATATGCTTTCTACTTCTTGTCTTATTATGAAATTATGAATTTGAAGCCTCTGAAATGG
TGATCAGTTTTCAACATCTTCAAAAACAAAATTACTA

Sequence 1891

GCGTCCGCGGCTGCTGTGTGTGAGCAGTGGACACGTGAGGGGGGGGTGGGTGAGAGAGAC
AGGCAGCTCGGATTCAACTACCTTAGATAATATTTCTGAAAACCTACCAGCCAGAGGGTA
GGGCACAAAGATGGATGTAATGCACTTTGGGAGGCCAAGGCGGGAGGATTGCTTTGAGCC
CAGGAGTTCAAGACCAGCCTGGGCAACATACCAAGACCCCGTCTCTTTAAAAATATATA
TATTTTAAATATACTTAAATATATATTTCTAATATCTTTAAATATATATATATATTTTAA
AGACCAATTTATGGGAGAATTGCACACAGATGTGAAATGAATGTAATCTAATAGAAGCCT
AATCAGCCCCCATGTTCTCCACTGAAAAATCCTCTTTTTTGGGGGGTTTTCTTTCTTTCT
TTTTTGAATTTGCACTGGACGGNGGACCGTCAGCCATGTNCAAGGATCCCCAGGGGGGGG
GNNGTCAAAATGGCTATTGGAAAATTGGGGTGGAAATGNATGCCTTTTTTCACTTTTGA
TAAATAAACATGTAAAAAAATGNTTCAAAAAAATTAATTAAATTAATTAATTC
NNAAAAAAAAAAAAAA

Sequence 1892

AGAGGATTCAGGGTTTCCAGGGGGCCAAAGGAGACAAAGGTTCAAAGGGTGAGGTGGG
TTTCCCAGGATTAGCCGGGAGCCAGGAATTCCTGGATCCAAAGGAGAGCAAGGATTCAT
GGGTCTCCGGGGCCCCAGGGACAGCCCGGGGTACCGGGATCCCAGGCCATGCCAOGG
AGGGGCCCAAAGGAGACCGCGGACCTCANGGCCAGCCTGGCCTGCCAGGACTTCGCGGAC
CCATGGGGCCTCCAGGGCTTCTGGGATTGATGGAGTTAAAGGTGACAAAGGAAATCCA

Sequence 1893

TCCGCCCCGCGTCCGCTTTTTCCNAACAAGGAGCATCCAAAGACACAGTGACTTGAGCTA
TAGATAGTAAAAATCATACGAGAGTTGAACTGAGTCAGGTTTAGGAAGCAAGTTTGTTG
CATCAATTAAGCAGGCTCTTTTCAATTGACTGATGCTGGGGCCTTCAGTTTTATTCTCAG
TATAGATTGCCAGTATTGTTAAGAGTATCCAAAGGCCTTTCTAGATGGAGACAGAATAAC
TGACTTGAACATACAGTGTGCCTGTAAGTGTCCAGGCTCAGAGCTGGTGAAAACCCCTCT
GTTGGGCGTGTGCAGGGTTAACTCCTGAAGTAACTTGTGAGGACTTCAGTGCTTGCTGG
TGTCTGGGCAGCACCATGAATGCCTTTACCAAGACATGCCAAGTTGGATCCCCGAATG
AAGCAAGAGTGGCTTGTGGGTGTGACCCTTGCTCCCTGTACACAGAAGCATCGCAAGGG
CTGCCTGTGTNGGTTTCCAGATGAAGGGTCTTGGGTCCCGGAAGCTTTGTGGTTGAGAGC
TCAAGTGGGACC

Sequence 1894

GTCACCACGCGTCCGCGGACGCGTGGGCGCACGCCGGCGGCGGAGGCCGGCTCTGCGC
TTCGGGCGCGCCCCCTCCCCCACCCTGCTCACACCCGGCACTTACTTCGGCTGTCTCCGC
TGCCCTCCAGCGGAGACGCAGCTCCTCAGGCGCCCGCGGTATTTGTTGGGTGCGCGCG
TCAGGGATTGCGAGTGGCCTGTGGTCGGCGTGTCCGGCCACTGGTGCGCCCCCGCGGCA
GGCAGAGCTCACGCTCCTGTCCCCCGGCTGGTCCGGGGTCTGGGCGCGCGTCTGACGGCG
GCTCCGCGAGGACGCGCAGACCGGGCCGCGAGCCCATGCC

Sequence 1895

NCCCCGCGTCCGATTTAAATGCCCTAAATTTTAAATTCATACCTTTCCATGATTCAAAAT
TCAAAAGATCCCATGGGAGATGGTTGGAAAATCTCCACTTCATCCTCCAAGCCATTCAAG
TTTCCTTTCCAGAAGCAACTGCTACTGCCTTTTATTTCATATGTTCTTCTAAAGATAGTCT
ACATTTGGAATGTATGTTAAAAGCACGATTTTTTAAATTTTTTCTAAATAGTAACA
CATTGTATGTCTGCTGTGTACTTTGCTATTTTTATTTATTTAGTGTTTCTTATATAGCA
GATGGAATGAATTTGAAGTTCCAGGGCTGAGGATCCATGCCTTCTTTGTTTCTAAGTTA
TCTTTCCATAGCTTTTCAATTATCTTC

Sequence 1896

CGACCCACGCGTCCGCCCCNGCGTCCGAGGGGCAACAGCAGAGCCTACAGCAGGGGGCACA
CTCCACCGGNTCCAGCCGCCTGCACGACCTCTACTGGCAGGCCATGAAAACCTGGGAGT

TABLE 1

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CCAGCGCCCCAAGTTGGAGAAGAAGGATGCCAAGGAGATCCCCAGTGCCACCCAGAGCCC
CATCAGTAAGAAGCGGAAGAAAAAGGGATTCTTGCCAGAGACGAAGAAGCGCAAGAAACG
CAAGTCAGAGGATGGCACGCCAGCGGAGGATGGCACACCTGCAGCCACCGGCGGGAGCCA
GCCCCCAGCATGGGCAGGAAGAAGAGGAACAGGACAAAGGCTAAGGTCCCAGCCCAGGC
AAACGGGACGCCAACCACCAAGAGTCCAGCCCCTGGCGCCCCAC

Sequence 1897

ATTATATACTTCTGAATGGCACCTTACTTTTTGGAACAAATCTTCTGTTATTTACAAAA
TAATAATTTTTAAAAACATAAAAAAAAAAATCCAAAGCTGCTCTCGATAATAGTCAACAT
TTGCATATATATGGAATTTCTTACTTTTTTCTCCAAACTCTATTTAATAAACTTATTT
TAATGTTTGTGTATTTTCATGTATAATTGTGATCTCAATTATAAAAGTTTAATTCAGCATG
TCTTTGAGCCAATATAATTACTGCACACCCACTAAATTGGGATCAGCCATTATAAATAAT
GTAGTTTTAGAATAATAAACATGACACATATATATATATAAATATATAGTATATATT
GGCACATCGGTGAAAGTTTAATATGTGCAGGAAGGTTTTTTCTTTCTTCAAGTTAAAAA
TTATTTTTGCCATATGTAATTTTGGTGTTCAGGCTGGTCGAGAGGATAAAAAATGGAT
TTAAATCTGGGTACCGGATGGATCTTTCNGGNGGTTAAGAAACACAGGGGNTGNNGACC
TTCCTTTTT

Sequence 1898

CCGCGTCCGAATATAGTATTTTTTAATTTTTGTGGGGATGGATTCTCAAATACTTGTGAT
TTTAAAGATTCTAAAGCTAAAACACAACCTGATTTTAAAAAGAATGATTCTCCTTACAC
AATTATAAATATTTGCAGTAAATATTTTCTTATAATACTGTTTTGACCCCATTTAAAAA
GTATTAGATTATATTCCTTTGATCCAATGAAAACCTGAACCTTATAAATGGTTAGCTGAAA
GTAGACCTTATTCTTGTCTTCTTTAGAAGAGTAAAGATTTGTCCTAGGGAAGATGGCTG
ACTTCGGTTCCCAACATGCCGTATGCATTTAGACTGTAGCTCCTCAGCCCTGTGGACACA
AAATTTGGACAGCTTATTAGGNTACCGTTAGCAATGCTGGACCGGTTTCTTCAACACTAA
AGANTTTCACCGTTGNAACAGATTTCTGTTCTGCTCTNATGGGGNCTGGTAAAAATGGT

Sequence 1899

GCCCTGGAGGCTACTTGTAATCCTTAGAAGAAAAGCTGGATCTGGTCACGAACAAGCAG
CACAGCCCCATCCAGGTTCCCATGGTGGCCGGCTCCCCTCTCGGGGCAACCCAGACGTGC
AACAAAGTGCATGCGCTGTGCCTGGGCGTCGGCAGAACACCATTGTGGTGAAGGTGCCG
GGCCAAGAAGACAGNCACCACGAGGACGGGGAGAGCGGCTCGGAGGCCAGCGACTCTGTG
TCCAGCTGTGGGCGGGCAGTCAGAGCATNNGGAGCAACGTACGCTCATCACCCCTG
AACTCGGAAGAGGACTACCCCAATGGCACCTGGCTGGGCGACGAGAACAACCCC

Sequence 1900

NCCACGCGTCCGCCCCGCGTCCGGGCCCGGCGCGCCTGCTCTGGGCTCTCCGCGTGCCGC
ATCGCTTTCTTTCTTCTCTGAGCAGCTATGGCGGCGGCGAAGACCCTGAACCCCAAG
GCCAAGGTGGCCGAGCGCAGGCGGCGCTGGCGTTCAACATTAGCGGGGCGCGGGGTCTG
CAGGACGTGCTGAGGACCAACCTGGGGCCCAAAGGGACCATAAAGATGGCCTTCATCCCA
GAATAATCACTGAAGGATTTGAAGCTGTGAAGGAAAAGCCCTTCATTTTTTGAAGAAGT
CAAAGTAAGCAGAGAGATGGACAAGGAAAC

Sequence 1901

CCACGCGTCCGCCCCGCGTCCGAAACATGAGGTTCTCTCTACTGGTCCTCTTAACCTGTGG
TGTTGAGGCTTATATTTGTGTAATTTTTGGTGGGTGAAAGGAATTTTGCTAAGTAAATCT
CTTCTGTGTTTGAACCTGAAGTCTGTATTGTAACCTATGTTTAAAGTAATTGTTCCAGAGAC
AAATATTTCTAGACACTTTTTCTTTACAAACAAAAGCATTTCGGAGGGAGGGGGATGGTGA
CTGAGATGAGAGGGGAGAGCTGAACAGA

Sequence 1902

GTCGCCCCGCGTCCGCCCTCCCTGGCAAATAATATAATAACCCGTGAATTTTCAGGAATT
TAAAAATTANGCTTTTTTCCACTTAAAGGAGAAAAATATTTGGGACTAGCAGCAGAGGCA
GTAAGAGATGTGAACCTTGGTGAGCTCTGATACAGTGAGAAGAGATTATACTCATGAAAG
AGAATGTTAGTGTTACAGAGAAGCAGCCGATAGCAAATCGACTGTAGAGACTTGGCGGCG
GTGGCATTGCCCCAGGTCGTGAGCAGTGTGGTATTATCTATGAGAACTTGAGCGACAGAG

TABLE 1
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TATTTCTTGATGAATTTATAGATCATTTGAGATGTTGAGTTACTTTAGTTTAGTTTTGTT
TTGTTTTTTCAAATAAGTAGAGACTATTTGTAAAAAACGAGGAAAGGGAAATGAAATGGG
GCGTGTTTGATAGCAATAAATTTGGTTTCTTTTTAAAGAATTCTAAAAAGGGTCTGAGAC
CCTGNTAGCATTATTTTTGAGTGCCCTTCCTTTTTNCCCTCCCCTCCCTTTTTNTT
TTCTCT

Sequence 1903

GCGTCCGCCCCGCGTCCGGGAAACCCCTTCGATGACCTCCAGAGCCTCCCAAACGACGT
GATCTCTTCCCTGAAGAACAGGCTGAAAAAGGTCTCCACAACCACTGGGGATGGTGTGGC
CAGAGCGTTCCCTCAAGGCCCAGGCTGCTTCTTCGGTAGCTACCGAAACGCTCTGAAAT
CGAGCCCGAGGAGCCGATCACTTCTGTGAGGAAGCCTTCGTGTCCCACTACCGCTCCGG
AGCCATGAGGCAGTTCCCTGCAGAACGCCACACAGCTGCAGCTCTTCAAGCAGTTTATTGA
TGGTCGATTAGATCTTCTCAATTCGGCGAAGGTTTCAGTGATGTTTTGAAGAGGAAAT
CAACATGGGCGAGTACGCTGGCAGTGACAACTGTACCATCAGTGGCTCTCCACTGTCCG
GAAAGGGAAGTGGAGCAATTCTGAATACTGTAAAGACCAAAGCAA

Sequence 1904

CGTACGGGGTGCGGTTGGCGGCGGCGGCTGGGCGGGGGCTGCCGGCTGCGCTCGGGCCG
TGCGCGGCGGCGGTGCGGNCACGCCATGGACTTCAACATGAAGAAGCTGGCGTCGGACGC
GGGCATCTTCTTCACCNCGCGGNGCAGTTNACGGAGGAGAAATTTGGCCAGNCTGAGAA
GACTGAGCTTGATGCCCACTTTGAAAACCTTCTGGCCCGGGCAGACAGNACCAAGAACTG
GACAGAGAAGATCTTGAGGCAGACAGAGGTTCTGCTGNAGCCCAACCCAGTGCCACGAG
TGGAGGAGTTCCTGTATGAGAAGCTGGACAGGAAGGNCCCCTCAAGGGTCACCAACGG

Sequence 1905

CNCGCGTCCGGTGATCTTGCCATTGATTTCTAAATGTATTAACCTACTTAAATTAATCC
TGAATCTTTTCCAGGCTTAAGTGGGATAATGTTTTATTGTAGATGCATATTTCTGGCT
CTACCCAGTCTTTCTTTGAAGACTTTATCATCCTATTTTCTGAATCCAGTGGCTGACTTT
AATCTTCTCTGGAGGAAGTAGATAATTTCTAGACTAATGCTTACACTCATGATCCAGATT
GTAATTTCTGAGATCTTGAAATCTTCCAAATAGAATCAAAACAAGAAAGGGGAAAGCCTCTCA
AGCAACTGTGCGTTAATAATGAAACACTCTTTTTTCTAATCCAAGGAGGGTTTCATACT
TTTTCTTAGTTTCTTGCCCTCTTCCCTTGATCAATAATTGTAATAGGGAAATTTGCAA
TTGTGCCAATACTCAGATTCAATACTGAACCTACTTTCTTGCAATTGGAATTCAAATCCAA
GGTTAACAAGTAGCTGTATGTTTCCAAAACAATCTTATTGGATATGGATTTTCTTAGGGG
GAAGGTTCCAGAAATGATT

Sequence 1906

GANCAGGCTCAAGAGCAACATGGAGGTCTGCACTTAATCGCTCCTCTCCGGGGGCGGCCA
TACCGAGGAGGCGTCTTCCGTGCAGGCAGGCTCTCCTGGGGACCTCAGAGATTCTCTC
CAGCGGCAGCGGAAAACGGACAATGGGTGGATTCCGGTCCAGATTCTGGTAGGAGGGAGT
TTGGGATCGAGATCTGAAAAAAGCACTAGACTGGAAGAGGACGCGATGGAGTCGGAGCC
GCTGGCGGGGACAAAAACAGAGGCCGGGGAAGGCGCCGGTGGGAGGCAAGGCACGGATG
GACTTTACCTGCGCACGCGTGCAGCCATCTCCGCGCACAGTGGTGGCCACCGCGACTGG
TGCTGAAGTGTTGGCCGCGTGCCGGGCGCTCCGCTGGGACCCGGGTTGCTGGCCCTGAGT
CTCAGCTTCTCATCTGTACGGTTGGGACAAGTACAGTAACCCTCTCCCGTCAAGACGGG
CC

Sequence 1907

GTCGACCNCGCGTCCGAACATCGTCAACTACGGCATCCCAGCCCACCGTGACATCGACGA
GTGCATGTTGTTGGGTTCGGAGATTTGCAAGGAGGGCAAGTGGTGAACACGCAGCCTGG
CTACGAGTGCTACTGCAAGCAGGGCTTCTACTACGACGGGAACCTGCTGGAATGCGTGGA
CGTGGACGAGTCCCACTGCCGGAACGGAGTGTGTGAGAACACGCGCGG
CGGCTACCGCTGTGCCTGCACGCCCTGCCGAGTACAGTCCCGCGCAGCGCCAGCT
GAGCCCGGAAGAGATGGGACGTGGACGAGTGCCAGGACCCGGCAGCCTGCCGCCCTGGCC
GCTGCGTCAACCTGCCGGGCTCCTACCGTGNGAAGTGTCGCCCGCCTTGGGTGCCCGGGC
CCTCCGGCCGNGATTGCCAGCTCCCGAGAGCCCGGCCGAGCGTGCCCCGGAGCGGGCCGA

TABLE 1
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ACGTGTGCTGGAACCACGCGGAAGAGGACGGNATGTGCCCTTGCCCCCTGGCCCCGGGCC
Sequence 1908
ACCACGCGTCCGGGCGGCCCGGCCAGGCCCCCGGCACTTCCTCGTCCTCGGCCCGGGTGC
CCTGCCCCCGTCCAGGAGCCCTAGGAGTGCTACGGGGGGCGGAGCCTTGCCCCGGGCCG
TGCCCCGTCCCTGGATTGCGGGCTGGACGCAGCAAGCAGGNGCGCTGTGTCCCCAAGCTC
CCCGTCCTCGGGGGAGCTTTTGAAGAGTCCCAGATGGAAGCGACCAGGCTCCGGCAGAA
GGCAGAGGAGCTAGTGAAGGACAACGAGCTGCTCCCACCACCTTNTCCCTCCTTGGGCTC
CTTCGACCCCCCTGGCTGANCTCACAGGAAAGGACTCAAATGTCACAGCATCTCCACAGN
CCCTGCATGCC

Sequence 1909
ACGCGTCCGGAAGGGTGTTACATGTGTCTCTTCAATACCTTTGGTTTTGGGAAGATCTCA
GGAACGGCCTGCCTCACCGTCTATGTACAGCCCATAGTATCCCTTCACTACAAATTCTCT
GAAGACCACCTAAATATCACTTGCTCTGCCACTGCCCGCCCAGCCCCATGGTCTTCTGG
AAGGTCCCTCGGTGAGGGATTGAAAATAGTACAGTGACTCTGTCTCACCCAAATGGGACC
ACGTCTGTTACCAGCATCCTCCATATCAAAGACCCTAAGAATCAGGTGGGGAAGGAGGTG
ATCTGCCAGGTGCTGCACCTGGGACTGTGACCGACTTTAAGCAAACCGTCAACAAAGGC
TATTGGTTTTTCAGTTCGCTATTGCTAAGCATTGTTTCCCTGGTAATTCTTCTCGTCTA
ATCTCAATCTTACTGTACTGGGAAACGTACCGGAATCAGGACCGAGAGCCCTAAATAAG
TCACACAGCACCCCTTGAAAGGGGATTCTGNGCTACTTGGATTGGCACAAGAGAAAAAG
CAGGAGGGAAAGG

Sequence 1910
GCGTCCGCTAGTTCTAGATCGCGAGCGGCTGCCCTTTTTCTTTCTTTTTTTTTTTTTT
TGAGACACAGTCTCACTCTGTACACAGGCTAGAGTGCAGTGGCACGATCTCAGCTCACTG
CAACCTCTGCCTCCAGGTTCAAGTAATTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGAC
TACAGGCACGTGCCACCACGCCAGCTAATTTTTGTATTTTAGCAGAGATGGGGTTTCA
CCACATTGGCCAGGATGGTCTCGATCTCAACCTCGTGATCCACCCACCTCGGTCTCCCAA
AGCGCTGGGATTACAGGCGTGAGCCACCGCGCCAAGCCAAGGTCTGCATTTTTCTTTAGA
ACTCAGAACACCCAATAGTCCTAGGCCCCCATCCTCGCATGGCAGCAAGCTAAATAAGCA
TNTTCCCACTGCGAGTTGGGG

Sequence 1911
GTCCGCTGAGAATGGATAATCTCACTGCAGGTATTCCATAATAGGCTTGGATTA AAAACA
GGGACAATGGGCAGCAATAGGCCATAGGTTAAGCAGCAGCAACTAGTCACCACTGGACTG
TCTTCTTCTCCCTTCCCATATCCACATTCTCCTAAACATGATGTACGTGTAGCAACA
GTCTTTTAAAGTCAGATGGTCAGACTAATTATTTTACAATTTAAGTGTAAAGTGATGTAC
ATGAATGGACTCTGTGAATCGGAAAACCTACGTAACAGCAGAGAATACGTATGTTATATG
GAATAACCTGAGTTGAAGGTACAATTTTTTTCCAGCTCTTTTATTCCTTTAACTGCTTA
ACAAAAGAAAGAGTCTCCAAAGTTTAAAAAACCTTTGAAAAATATACAGCTTGATATTAT
TTACATAAAATATGAATCCAGGTTCCAATATCAAACAAACATTGCTATGTCAGAAACACA
GTGGAAGGCAGGAACGTAACCTCACTGCCTTTTAGAT

Sequence 1912
CCCGCGTCCGCTCTTTTCTTCTCTNTAAAGTGAATTATTCCTTTTTTTGTTTTATGTAA
CGTGATATATTCTTAGTTTTCTTGAAATCATTGTAATGTTAACTTTGTTGTTTCAAAT
ATCTTGGTGATTGCTTCATTATCTCTTCAACAAAAAAACCTTTAATTTTGCCATTGAAA
CTGTAGAACTATGCCATGCTTTTATTAGAAGCAGTGCTCTGTGTTAACAACAAGATGGT
GTAATTAGAATTGGGATGTGGATATTTACTGTATGACAACACATTTACAGTTCTGTAATG
CAAGGATGCAGTTTAAAAATGTGAAGTAGTGATGGTTTTTGAATAAGCTTTAAATATA
GGGGATCTTGAAGGCTCCCTGGGGTAACTATTTTATACTTAGATAAAATGGCTAGTCAT
ATCTGTGTGGTTTTGNAAAGGTTATTTTTTAAATATTTTAAGATTACAATTTTACAAATGT
AGAAATGAGCCCAACTATTTAAATTTTAAACAGTAAAAACAAA

Sequence 1913
CGACCCACGCGTCCGCTTTGAAGCAGGAAAAGACACGTCTCTAGAGCAACATGGAAAGGA

TABLE 1

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TCCAGTATTTGTTTTAGGCAAAAGCAAGCCTCCAAAAGCCCCCTTGGTTCTTCTCTGTGT
GTCTCGCCCCCTTCTGCCTTGACACCAGACTGCCGGCAAGCAAGCGGGGAGGTGGCGAAC
AGCTGGGATCCTCCAGTGAAGTTTGCTCAGCGGAGAGATGTCAAGAGGCTGGGATTG
TCGCCTATCGGGAGGTGGGGAGCTCTCTCACTCACACTTCCTGGGAAATGAAGGAGAACT
AATAGGCAGCCCGCATTTGCAGCCAGCCAACCTGGGTGGTATTCTTGAAGTGAAGCGCT
CATAAATCCCTTCTGGGGCCAGAGCCGGTTTCAAGCTGCAGGATTGGGTGGCCTGCC
TGCTCTTTGGGAGCGGGCTTGGGAAGCTGAAGAAATTGAATCAGGACCTCAGGCCCTTTA
CAGACTCCC

Sequence 1914

CGCGTCCGCCCCGCGTCCGCTCAGAAACCCCTGCCCTTTCCCTTCAGAAAACGATGGCAG
GCATTCCTCTGAGTTTACAAGCAGAGACTCACTCCAACCCAACTAGCTGGGAGTTCAGA
ACCATGGTGAATAAAGAAATGTGCATCTGGTCTCTTCTGTTGTTTTATTTATATCAG
ATTAAATTTCTTTACCATGTTGGCTAAGTCTAAATATTAGAGATGAGGCTGTGCCTACTC
CCTGGCCAGCTCTGCTGATAGCCTATGATGGGTTCCAATGGGAAATGACTCTTTACTATT
AAAAGACAAGGAAAGCTCTGACTTCGTAATCTCTGATGAATGGCAATGTAAATGAACAA
GGCTCCATGTGACTGGAGCATGGAAGTGAATGCTACTTTCTTAATTTAATCTGCCCTGTC
CTACCTGCTCCTCTGATTGTTAGCCATCACATAACTATTGAATGCTTGCCATGTGCCAG
GCACTGTGCTGAGTGCCATACATACATTTCAATTAATTATCCAATAATCCTACTTACTA

Sequence 1915

CCGCGTCCGATTCTNTAACATCTCTGTGAGGAAGGAATTTTTATCCTTATTTACAGATG
AGGAAGCTGTTTGGAGATAATTTAAGTGACTTGCCCTGGGGAATCTAGCCAGTAGTAGAGT
ACTGATTAATCAGGTGCTGACATCTGCTCTGCTTTGTGTATGTAATTCAGCAGTGCTTCA
AAGATCCAAGAAGCTGTAGCAGATCTCAATACACTCTCCTATAAAATTAGTGAATAATCA
CCATGACAAAATTGGTATGGCGGAACAGTCATTATACATTATTTAGACTCATTCTTCTT
CCAGTGCCCTTATGATTATTTCTACCTTTACCATTGG

Sequence 1916

CCNCGCGTCCGCCCCGCGTCCGCCCCGCGTCCGATATTGCTTCAGAAAACCTGAATGTGTA
TGTCGGTCATATTGCCTTTATAACCATGCTAATATCTATGCTTTATACATACTCAAACCTT
GCCTTGCTTAAAAAATACATACTACATACTTAAATCAGGAATTCTAGCCATCTCACAG
AATACCAACTAAACTAAGTGCATTGAGATCTGAGATTGGTAAACCCAGATTCATTTACC
ACAGCTGTAATTAAGTTTTAGAACTATTCTTTTTGGGGAATCCATTGAAGTTAAT
TTCTGTTATCTTATTAGAAGAAAATGATGTTGATATGTGTTTCAGATTTTCCATTTGAAA
TCTTATAATTAATTTGATTTATTTACTGTAAGTAGGAGGTATNAATGACACTCTTAAATT
GGAAGGAGGGGTGTTTGTGCTGTNTTAGGTCAAATAGTGATTCTATTTTATCAA
AAGTTTTATCCTGAAGTTTCAGGACCACTCTTCTTAATNAACCTGTTAATGGGAAGCGA
GCCTTATGAACATTTAAAAAT

Sequence 1917

CGCGTCCGCAGCAGTAATCCTTTAATAACTGGCACGAGCACTTTATTCTTCTGGTGAGCT
CCCTGAATATTTATTTTCTGATTATAAATTTTCTATATTAGTAGCATTTTTTAATTATT
ACTTCTTCACTATAGAGCATTTACTTTTGTCTCTAGATGTATTTTTGGAATGCTGTAC
TTGGCATAACATAGATTAAATCATAATGCATGACTAAAACTCCTTGGATTTATTTCCC
ATTTTAAAAATTTTAGCGGTAAGTTCAGATTTATAATCTTTCTCTAGACTTCCATGGTCT
GAATGTTGCTGCTGAAGTAGCAACCTAAAAAGTATCCCCTGCTTATGCTTCTCCAGTTG
GCCCTCCATGTCCATAGGCTTCGCATCTGTGATTAGCCCACTGTGGGTCAAAAATATT
GGGGAAAA

Sequence 1918

GCCCGCGTCCGCATCCCTTGATACCATCGTAGACTTCATACTGGAGAGAAACCTTACAA
ATGTGAAGAATGTGATGAAGCTTTAGTTTCAAATCGAACCTTGAAAGACATAGGAGAAT
TCATACTGGAGAGAAACCTTACAAGTGAATGATTGTGGCAAGACCTTCAGTCAGACATC
ATCCCTTGATACCATCGTAGACTTCATACTGGAGAGAAACCTTACAAATGTGAAGAATG
TGATGAAGCTTTAGTTTCAAATCAAACCTTGAAAGACATAGGATAATTCACTACTGGAGA

TABLE 1
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GAAACTTTACAAGTGTAAATGAATGTGGCAAGACCTTTAGTCGGAAGTC

Sequence 1919

NGACNCGCGTCCGCGCTCCGCTGCCNNGGGCGGGAGGGAGGAATGGTTGCTTCACGCCC
CGGGGGAAGAGACNGGAAGCTCGGCTCTGGGTTGCGGGCCCCGGGGTCTCCGCGTGGGGC
GCACCGTCCGACCCGCCCTCCCGGTGTGCAGCGCCCCGCACCGCCCCGCCTTGCCTGGG
AGAAGCCCCGGCGGGACGCGCCGGGCTGGAGTGGGCGGTTATAGGCTTTGAGCTAGGCCGC
TTCCGGGAGGCGGAGCTCACACCCCATTTCTTT

Sequence 1920

GTCCGTTCTTGATTCTGGAAGTCCAGTGGGTTCTGCAGCTGAAAAAGCCCTGGGTCCC
AGCAGCAGAGAGACAGGACAGAGGGGATGCTTGGGCGGGAGGGACGGTAACCTGCAGAA
CAGATTCATTTTTATAGAACGAGTACACGTTTGCTAAACAGTCCTGCTTTCCAGACT
GGATTCCCACACAGGGACAGTCGGAACCTCAGGACTAGCTCCAGCGACATCTTCTCTCCG
AATTCAAGCCTTCTATCACAATGTCAAAACAGCTATTTATAAAGCCATTTTCATTGTACT
TGATAACAGCACGAGTCCCAAACTTTTAGAAATAAAATAGGACATTGGCTTGATTGAAA
AGAGGGACTTTTTAAAAATTGTTCTTTCGTGAGAAAGCCTTTTGGATGACT

Sequence 1921

GCGTCCGAAAAAATAGCATTATACCTCTTCTGTCTCAACCGCCATGAAAATTCTGAA
CACTCCAAATTCAGTTGAATAATCCAAAACAAATTTATAAGTATAAAATAATTTTACTT
CTTATAGTAATAGTATACTTTAAAAAGCCTCAGGGTATATTATCTTCTAAACAGCTACAA
TTCAGTGCAGCTACATTAACCAACTATGTTCTCTAGTTGAGAACAAGTGGCCTATTTCA
CTGCTGTGTAGCCTCAGTGCCTAACATGGGTGCCAAATAAATATTCGTAGAATTACACTG
AATTGTAAAAACCATTCGTTTTTGTTCACAATTGCCAAAAATCTCAAAGGCCCTGTATT
TATGTAATTCCTTGAAATTATTATTTTATTTGATTTCTCAGTTATTGACTGGTGGGGTG
TGACTTAGTCATAAGTACTCAATATTATAAAACCTCAAATAATTGACTTGGATTTTACA
CAACATCCTTCCCTTTTCTACAAGTTAAATTTTTTACC

Sequence 1922

TTGGTATTCTTGGCTAATTTCTTAGCTACTTGAAGGTTAATTTGCAAGACTTTTAAAACC
TTAGAAAAGTTTTAAGGTTGCAAAGTTATCAACACTGGGGCAGAGGGTGGAGAGGCCAAT
GCGGGTAGAAGGAGGCAGTTATGTTTATATTGAAGTGAAATTTTTCTTTCATTTAGAAT
GGAAAACATCCCCAAATGTATCATTATAAAGTATGAGCCTTGACTACACAAAATTGACC
TTTAAGTTGCTTGAGAAAAACACAATGCAAATCGTTGAGAAGGGTCAACATCCTTTGGTG
CTAAATCTTGTGTATGTTTTGAGAATGGCTTTTTCTGTATGTTATAGAATAATCACTAA
AGGAAAGGTAGTTGAATTTAAAGTCATGAAGCAAGACTCTTAAATTCAGTTATTTTAAAC
AAGAATTAAACCCCAACATCCTTGGCAGGCTTGAAGCACACAGAATTTTCTAGNATT
TCTTATTA

Sequence 1923

CNCGCCGGAACAACAACAGAAAGCTGTGTTTGTCTTTTTCTCTCAAATATATCTCCCG
TATGAGATTTGAGTCCCCATGTTTTACCAAGCAATCTGCTATGTCAGCCAACCCANCA
TCACTTTCTACAGGAGGTTATGATTTTTGCCATTTACTAGAGGAAGATGTTTTATGAAAT
CAAGTTGGGGTTTGAATTCAGGTGCAGTCATCAGTTCTTTAGGGGCTGCAATGTTTTAAA
AAAAATAAGTCATCAGATTTTAAAGAAAAAGTGATGATTTCTTATTGATTTTTGTAA
CAGAATATAGGCTCTTAACTGAAAATCCAGAACCAAGAAACATAAATCTTGAGTTTCTTTT
CATGTACATAAAAAGCAATAGCCGTTTTAGTATAGGATAGCCCTGAGCCCAAAAAGTAAT
AGAAATTTTCTCTAGATATTTTAAACAGAGAGTGTATAGACTGACTCTAAGTTAATAAA
TGTGCAAAAATATCTTAAACCATNCCCTNCCCTTTATTTCAAC

Sequence 1924

CCNCAAAAAGGAACCAAGGCCACTTGTATATATATGGTCTCTTCAGCATTTATTGGTGG
CAGAAGAGGAAGATTTCTGAAGAGTGCAGCTGCCTGAACCGAGCCCTGCCGAACAGCTGA
GAATTGCACTGCAACCATGAGTGAGAACAATAAGAATTCCTTGGAGAGCAGCCTACGGCA
ACTAAAATGCCATTTACCTGGAACCTTGATGGAGGGAGAAAACCTTGGATGATTTTGA
AAGACAAAGTATTTTACCGGACTGAGTTTCAGAATCGTGAATCAAAGCCACAATGTGCA

TABLE 1

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ACCTACTGGCCTATCTAAAGCACCTCAAAGGGCAAACGAGGCAACCCTGGAATGCTTCG
TAAAGCTGAAGAGTTAATCCAGCAAGAGCATGCTGNCCAGGCAGAAATCAAGAANTCTGG
TCACCTGGGGAAACTAT

Sequence 1925

CCACGCGTCCGTCGCGCTCCAGCAGCATCCGCTTCAGCAAGGCCTGCCTGAAGAACGTCT
TCTCGGTCTACTCATCTTCATCTACCTGCTGCTCATGGCTGTGGCCGTCTTCCTGGTCT
ACCGGACCATCACAGACTTTCGTGAGAACTCAAGCACCTGTCATGTCTGTGTCTTACA
AGGAAGTGGATCGCTATGATGCCCCAGGTATTGCCTGTACCCCGNTCAGGCCCAAGTTG
CTCAAGCTGTAAGCACCATTACGAGGTCATTCCTCCTCTGACAAGCCCTGGCCAGCCGG
GTGACATGAATTGCACCACCCAGAGGATCACTACACGGACCCCTTCTCCAATCAGACTG
TGAAATCTGCCCTGATTGTCCAGGGGGCCCCGGGAAGTGAAAAAGCGGGAGCTGGTCTTNC
TCCAGTTCGCGCTGAACAAGAATAGTGAGGACTTTNAGCCGCCATTGAT

Sequence 1926

GCGTCCGGTAAGTATTTTGAATTCAACCCTCGAATTATTTTTTCTCATTTTCAGCATAGT
GATAGGGGATGCAATGAGGCTTCATTATTTTTATGACCTGCCCTCATTTGCTCTGATG
TTCCTAAATTCTGTAATCATATCATAACTTTTGTATGAATAGAGAGGAATGGGCTCAC
TGAAACCTGACACTAGAAATTGGTGGGTGATGCTCATAACTGCAAACACTTAGCTTATTG
AAGTGCCTCTATTTACATGTTCTTTAGTTATAATATGATTTTTCTAACAGAAATACACG
TCTGTAATTGGTATATATTATACTTTGTATGTGTCACAACAAAAGCTAAACAGAGGCTAA
AGTCTTTAGCAGAGAAGAATGAATTN

Sequence 1927

AACTGTTTGGGAAAATACGTTGAGGGAGAGAAGACCTTGGGCCAAGATGCTAAATGGGAA
TGCAAAAGCTTGAGCTGCTCTGCAAGAGAAAATAAGCANGACAGAGGGATTTGCTCTGGA
CAGANATTGGAAGCCNGGGAAACAGAGAAGTGTGGGAAGAGATAGGAACCAGCANGATG
GCAGGGGCAAAGGGCTCAAGGGTGAGGAANGCCNGTGGGACCCACAGANTATGGGGAGA
TAAAGGACATTGCTTTGCTTTTGGTGGCACCGTAAGCTCCTTGACTGTCTNCAGCACCCA
GAATCTCATTAAGCTTATTTATTGTACCTCCAACCGGCTTGTGTGCAATGGGGGTCTT
TTTGTGGAATAAANGAGCANACAGGTTTTTATGTGTACTGTCAACCAGTGGGATGNGA
ACCAGATNGCATGGAANCAAGACGCTAAATGNAAGAGGGCCATAANGGNTGGGATTTCCC
AGGCNCCTTAAGAACAGCTTGTCTTTTTTTTTTCTTTCCAAAAA

Sequence 1928

CCGCCGGTAAGTTAAAGACTTTAAGGACATTCAAAGTTTAAATAGTGTTCAAATTGCAA
AATTTGGCAATCTTCATATAAATTGGTTTTCTTTCTAACTTTTCAAAAACTAACATTA
TGTCATTTATAGGAAAACATAGTTGGAATGTAATCATCCAAAGATCATTTTTAAATGA
AATTTAATTAGCATATTGAACATTTGACTTAATTGTTAAACCCAGTTTTGTTTTGTT
TTTTAATCAGATTTTGCACACTGATTAGTTTTGTGTTGTGGCTTTTGTGCTTTATT
ATTCAAGTTTTTTTTTTTTCTTCCCATGGGGGAGATTGTCTTCCAATGTTTAACTA
CGTTTAAATAAATAAAATGAATTTTATTGNTCATTTATATAAATCTGATCCTTGATG
TAATTTCCAATACAGTTCCAATTTTATGGCTTTATAATTACAATGATTTTTCTTCTATA
ATAAAACCAAAGTAAACATTTAAATGGGGAACTGATTTTTTCAATTTATATGAAGTAT
NAAGCCCTCTACTGGGGTCNTTATTGNGAATCATNCTGCCTTCAAANTGGTTTCAAAAN
TGGGTAGAAAANAACCTTTTTTTTTG

Sequence 1929

CCGCACACCCTAAAGAAAATAAGTATCCAGTCGACATCAGTGACAGTGATATGATGCTG
AACATCATCAACAGCTCTATTACTACCAAGCCATCAAGTCGGNGGTCATCTTTGGCTTG
CAACATTGCCCTGGATGCTNGTCAAGATGGTACAAGTTTGAGGAGAATGGTCGGAAAGAG
ATTGACATAAAAAAATATGCAAAGAGTGGAAGAGATACCTGGGAGGCAATCATTGGA
ANGACTTCCTGTGTCTTGGTGGAGTCATGATTAACAAGGATGTGACCCATCCACGTATG
CGGCGCTATATCAAGAACCCTCGCATTGTGCTGCTAGGATTCTTCTCTGGAATACCAANG
AAAGGAGAAAGCCAGGACTGACATTTGAGATTACACGAGAGGAGGGACCTTACCCCGAA
TTCTCNCAGAAATGGAGNGAAGGAAGTACATCCAGCAGCTNTGTGAGGGACCATTATCCC

TABLE 1

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AACCTGGAAAGCCCGATGTTGGTCANTCACTTGGAAAA

Sequence 1930

TTTTTTTTTACAACCAAAAAAGAAATCTTTAATAAAAAATTACTCATAAAAAATCCTA
ATAAATTTTAAAGAGCAGNGATATTCCTTATTACATTTATAAAGAACATTTGGNCCTTT
TACAAAAAGATCCCTTTTAATTNAAATACNTTTCTTATTTACAGATTAACATAAAATAT
CATNTACAGTTGCAAAGCATATTGCACATTACAGAGCAAAGCATTNGNGTATTTCCGNAA
GTTTTCCCAGAGTTCCCAACTCTATACTTTTTTTGTAAAAAGATTTACCTTGCTTATG
CAAAAATAAAATAAGAAATGCNANCTGNCGGTTTTGCTATTTAAAACTANAANCCAAAA
TAAACCTNTTAAAAATATTATTCCTCTGCCTTGCANAAAAGGAAAGTGAAGAGGGGTNTT
ANAAATCAGNGGGGGTTNCCACCAGNGTCNCTTGATAATTTT

Sequence 1931

CGTCCGGGGAAACTTTATATGGTTGGGGATAAGAATTGAATGCAAATTAATGAAGTAGAT
TTGCATTTATGGAGTTACCTCATCATGGAGTTACCTTGGTCTGTCCCACGTCAATTAATC
TTGNTTCCTTATTTTCATAGACCATCCTCTAGAACAGTGTTTTACACTGTGTATCATGA
TCCTATAATGCAGGGGTGTCCAAGCTTTTGTCTTCCCTTGGCTACACTGGTNGAAGAATT
GTCTTGGGCCACACATAAAATATACTAACACTAATGATAGCTGATAAGCTAAACAAACAA
AAAAATCACAAAAATCTCATAATGTTTTTTGAGATTGTGCTGTTTTTTAGTTGTGT
TTCAATGGAGAAATAC

Sequence 1932

CGTCCGGCGCGTTCGTGCGTCCTAGTTCAGTACATGCGTGGAGGGTTTACGGCAGCGTG
TTCTGATTCTTTGCGGGACGGCGAGCGCATTTGTGCTTTGCCCGCCGCGGCTANGAGGC
CTTTTGAGGCCGCGTAGTCGGTGTTTTTGAAGTACTCTACAGCTTCTGGCAGGCCGTGC
GGCGCCCTGACCCGGCCTCACCATGTTGGTGCTGTTTGAAACGTCTGTGGGTACGCCAT
CTTTAAGGTTCTAAATGAGAAGAACTTCAAGAGGTTGATAGTTTATGGAAAGAATTTGA
AACTCCAGAGAAAGCAAACAAAAATAGTAAAGCTAAAACATTTTGAGAAATTCAGGATAC
AGCAGAAGCATTAGCAGCATTACAGCTCTGATGGAGGGCAAATCAATAAGCAGCTGAA
AAAAGTTCTGAAGAAAATAGTAAAAGAAGCCCATGAACCGCTGGCAGTAGCTGATGCTAA
ACTAGGAGGGGTCTATAAAGGAAA

Sequence 1933

AGGGAGCCGCCCCGCGTCCGCCCCGCGTCCGCGGACGCGTGGGCTAAAACCCATCAGGCA
AGATCACCACGCATTGANATATTTTCATATCAAGATAAAGTCGCACATTTCCACAATAC
ATTGCTAAAATAAAGAGGAGAAAGGCTTAGGAAGTTTTTTGCAGAGAGTGCTGGTAAAG
AATTGAGCAAGTTTGCTATTGTATTGNAATGTTTCTCTCAGGTTTGNTCTTCCTATCATG
GNNGGTATTCCATGAATAATTGAGATCAGCCCTATGTAAGGTAAGATCATAATATGGGG
ACAAATGG

Sequence 1934

GCGGACGCGTGGGCTCCATCTGAGCTCTTGGGTGACCAGGGTGCATTGTCAATGAGGGTA
ATATTTTGAAGACATCTTTATTATGAGCAGTAGGTCTCAACAGTGGGCTTAAAAATGTGC
AGTAAATCATGCTGTAAACAGATGTGTTGTCATCCAGGTTTTGTGCCATGTCTAGAGCAC
AGGCTGAGTAGATTTAGCATAATTCTGAAGGACCCAGGATTTTCAAGATGATAAATGTG
CATTCGCTTCCACTTACAGTCACCAGCTGCATTAACCCCTAACAAGAATCAGCCTGTCCT
TTGTAGCTTTGGAGGCAGGCATGAACCTCTCCTAGATGGCATCTTCCAAGAGGGCTATTT
TTGTCTACATTGAAATTCTGCTTAGTGTAGCCACCTGCTTCAATGATCCTA

Sequence 1935

TNGACCACGCGTCCGGGGCGCCNTCTCCAGCAATCAAGTCTTGCTCCCTGGCCTGCCCTC
CGGCACCCTGGAGCCCCGCTTTCCACACAGCCTTGCTCCTCCCGGCCTGGCTTGCTGCCT
GCAGGCCTCTCAGGGTCTTACCGTCTCTCCAGTCTCGGATCCGGACCCGTGGATCTCA
GCCTCAGACCCTCCTCTGGCCCCGGCCTTGCCCTCGGGCACGGCCCTTTCTCTTCAGC
CCTGGGGTCTGCTCCCCGAGCCAGAATATTGTCTCCTTGAGAGTCCCCAAAGAAGGAG
TCTCCCAAGATCTCCCAACGTTGGAGGGGAAGTCCAAGCCCAGGGGGAACTTGACATACC
ACCAGGTACATGCCCCCAGAGCCGAGAAGGATNCGGGGGGGAAGACCCCCANGCCGTAGG

TABLE 1
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GNGTCCTCCCTTGGGTCCTCCTGGGCCATCTCTGTGGGGAAGGGACAANACTCGCAACAA
NCCACATTCTAANGATGANGGCCCTTTTNCCT

Sequence 1936

CCNCGCGTCCGGAAAATATCCNAGGTTGTACGCAGCAGTGGAAGTTGCTCTCAAGGGAGT
GGTATTTTACACTATGCTCATGGCGACAGTCAGCAAACCTCACCTGTTGAAGCAAGGAAGA
AGCTCCATGGGCACTGGTCTCAGTGGTGGGAAACGTCCTAGTCAGGAAGAGGACACACAG
AGTATTGGTCCTAAAGNCCAGAGACAGAGCACTAATTAGGTAAATATTTTAGAGCTGTAT
TTCTTGCTTTAGAAGAGTATATAATTAACATAAATTAAGATAATTTCAAAAATGGAGCAA
ATCTCTATTTTCAAACCAGAAAATCTTGAGGCATTAATTTTAAAGCAATTTTACAAACT
CAGTTAATTTTGGTCAAGAGACATGCATCTGTACTGGAGAAATTGTTGCACCAAGTTTT
ATATTCATCTGAACCAATGC

Sequence 1937

CCCCGCGTCCGCCCTTTNCTCCCTGAGGACTCCACAGAAGATGGTATATTATGGGAAAC
CTTCTTGTA AAAACA ACTATGAGAATTATATTGACATAGTGAAATATGTGTT CAGCGCTT
ACAAGAGAGAGTCCCCTCTCATCGTCAACACTATGGGATGGGTTTCAGACCAGGGGCTCC
TGCTTCTCATTGATCTGATCCGATTGCTGTCTCCAGCCACGTGGTTCAGTTCCGCTCTG
ACCACAGTAAATATATGCCAGACCTTACCCCGCAGTATGTAGATGACATGGATGGCTTGT
ACACAAAAGCAAGACCAAGATGAGAAATCGACGTTTCAGACTCGCAGCATTTGCAGATG
CTTTGGAATTTGCTGATGAAGAAAAAGAGAGTCCAGTTGAGTTCAGTGGACATAAACTGA
TAGGTGTTTATACAAGACTTTGCATT CAGAATAACTCCAAGAAATAGGTAAC TAACCTC
ATTTGGCTGAAGAATTATTTTCCCTCCGTCGAAAAAGACCTGCCATTCTCA

Sequence 1938

GTCGACCCACGCGTCCGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGCTCTCGC
ACTCTGTTCTTCCGCCGCTCCGCCGTCGCGTTTCTCTGCCGGTCGCAATGGNAGAAGAGA
TCGCCGCGCTGGTCATTGACAATGGCTCC

Sequence 1939

ACCACGCGTCCGGGCGCCAGGCTAGGGCGGCCTGGCCACTGAGCCGGGGTGCAGTGGCAG
CGGGAGAGTACCTGGCGATGGCGATATGAGCGGTGCGGGGGTGGCGGCTGGGACGCGGCC
CCCCAGCTCGCCGACCCCGGGCTCTCGGCGCGGCGCCAGCGCCCCTCTGTGGGCGTCCA
GTCTTGAGGCCGAGAGCCCGCAGCTCAGGCAGAGCGACCCGCAGAAACGGAACCTGGA
CCTGGAGAAAAAGCCTGCAGTTCCTGCAGCAGCAGCACTCGGAGATGCTGGCCAGCTCCA
TGAGGAGATCGAGCATCTGAAGCGGGAAAAACAAGGGTGAGCCGGCGCGGGGCCCTAGGCC
GGCCCTGCCTCCCCAGGCACACTCAACACTGCCGCTCCCGCAGCACAGAAACACAGCCAT
TCAACTCCAGCACACGCCTGGGCTCAGGGGGAACACAGGACGATCTCCATTACAAGCTCA
TAATGAATCAGACATCACAGAAGAA

Sequence 1940

CGCGTCCGTGAAGGCCAGACCGAGAGGTGCCAGAAGAGAAACAACTCCATCCAGACACG
CGGGCGGAAAGGCTCCAGGGGTCCAGGGCCAGATGGCGCCGCTCTGCCGACTCAGAAA
GAGAGAAACAAGAGCCGGAGCAGGGAGAGGTTGGGAAGAGGCCTNGACAGGCCCCANGCC
TTTGAGGAGGCGGGTGATCTTCTGAAGATCCCCAGAAAGTTCCAGAAGCAGATGGTCA
GCCAGCTGTCCAGCCTGCAAAGGAGGACCTGGGGCCAGGAGACAGGGGCTGCATCCTCG
GCCCCAGGCAGTGCTGTCTGAGCAGCANAACGGCTTGGCGGTGGGTGGAGGGGAAAAAGG
CCAAGGGGGGACCGCCGCCAGGCAACTCCGCCGNGACACAGGGCAGCCCGCANAGGACA
GCNACCACGTTGGGGAAGCCTTCCCTCCAGCGGAGAAGCCGGCTTCAGG

Sequence 1941

CCGCGTCCGCAGAAACATATGTGTAGTGTGCTGCAGCATAAGATGGAAGAACTTAAAGAA
GGCCTCGCGCAAAGAGATGAGCTTATTGAGAAACATGGCTTAGTTATAATCCCCGATGGC
ACTCCCAATGGTGATGTCAGTCATGAACAGTGGCTGGAGCCATCACTGNTGTGTCTCAA
GGAAGCTGCTCAGGTCTTGAGTCAGCAGGAGAAGGGCCATTAGATGTAAGGCTACGAAA
ACTTGCTGGAGAGAAGGAAGAACTACTGTACAGATTAGAAAAGCTGAAGCTTCAGTTAGA
GGAGGAACGACAGAAATGCTCCAGGAATGATGGCACAGTGGGTGACCTGGCAGGACTGCA

TABLE 1

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GAATGGCTCAGACTTGCAGTTCATCGAAATGCAGAGAGATGCCAATAGACAAATTAGCCG
AATACCAATTT

Sequence 1942

CCGCGTCCGCTCGCCTGCCCGGTGCACCCAGTCCGCTCACCCAGCCCAGTCCGTCCGGT
CCTCACCGCTGCCGGCCGGCCACCCCCACCCGCAGCCATGGACGCCATCAAGAAGAA
GATGCAGATGCTGAAGCTGGACAAGGAGAACGCCATCGACCGCGCCNAGNNAGGGCCGAA
TCCGACANGAAGCAANGCNTGAGGACCGCTTGCAAGCANGCTGGAGGAGGAGCAGCAGGC
CCTCCAGAAGAAGCTGAAGGGGACAGAGGATGAGGTGGAAAAGTATTCTGAATCCGTGAA
GGAGGCCCAGGAGAACTGGAGCAGGCCGAGAGAAGAGGCCACTGATGCTGAGGCAGATGT
GGCCTCCCTTNACCGCCGCATTAGCTGGTTTGAGGAGGAGCTGGACCGGGCCCAAGGANC
GCCTGGCTACAAGNCCTGCANAACTTGTANGANGCCNNNNAANGCCGGCCTNATNATTN
GCCNNGAAGAGGGAATTNAAANGTTNTTNNAAAAACC

Sequence 1943

GTCCGCTTAGTTTTCTGCATTATNAGTNAGCATAAATAATAAATCCAGAAAACGTGCTGTA
TTTGTGTTGTTTCTCCATGGGCTTTCCCGCCATCTAATTTGATATAGACTTCATCTCC
CGGCTCCAAATGAAGAACCACACTGTTACTGGCATAGTCGTAATTCTGATCAGCATCTTG
GGCAATTGCACTAGCACGCACCTACGTGAAACAGACAAGAATTAGGATGCGTAAATGAGA
ATTCTCAAGTTTTCTTTTTGCCATTATGTAGCATCACAAGCTGACTTGCTGCCATAGT
ACAGAATTTAGCATAGCAAAG

Sequence 1944

GCGTCCGGCTGCGGGCGGTGCGGGCTCCGGGGCCGGGGCGGGCGGCCATCTTGTGCCCGG
GGCCGGTGGGGAGGCCGGGGAGGGGGCCCCGGGGGGCGCAGGGGACTACGGGAACGGCCT
GGAGTCTGAGGAAGTGGAGCCTGAGGAGCCCCCGGCAGCCAAGAGGAGGAGGAGGAGCCG
GGACTGGTCGAGGGTGACCCGGGGGACGGCGCCATTGAGGACCCGGAGCTGGAAGCTATC
AAAGCTCGAGTCAGGGAGATGGAGGAAGAAGCTGAGAAGCTAAAGGAGCTACAGAACGAG
GTAGAGAAGCAGATGAATATGAGTCCACCTCCAGGCAATGCTGGCCCGGTGATCATGTCC
ATTGAGGAGAAGATGGAGGCTGATGCCCGTTCATCTATGTTGGCAATGTGGACTATGGT
GCAACAGCAGAAGAGCTGGA

Sequence 1945

CCCACGCGTCCGGCAAACCGGGAAAGGAGAGGATCCCGGAGCCGGTGAGAATTCTCTGTT
TTTTCTTACCATCCTTTCCAGGCCTTTTCTCACCTAATGAGTCGTAGAGACGAGGGCC
CAAAAAGTCTGTAAAGGTGGCTGGTGAAAGATTAAGTGNTCCAAGGGCCCTACATTCCNG
GANGNGGTTCCGGGATAAAAGAGAACTAGTCNTGGGAACAATGTAAGTGGGAACNTNAAGG
NANNGNAAAGCGGCCNATAAAGGNGNCGGAGGNCCCAATGGNANTAAAGCGGACCCTG
TGAGGTATAGAGTTGAGTCAAGTGGAGTCACTGCCTCTTGTCCCTCTTGGTCAGCGTGA
TGGCCAGAGGCCTGGGGGCCCCCACTGGGTGGGCGTGGGGACTGCTGANCTGGGCCN
ACTTGG

Sequence 1946

ACGCGTCCGGCCGGGAGTGGTGGTGGGCACCTGTAATCCCAGTTACTCGGGAGGCTGAGG
CAAGAGAATCTCTTGAGCTCAGGAGGCAGAGGTTGCAGTGAGCTGAGATTGCGCCACTGC
ACTCCAGCCTGGGTGACAGAGGGAGACTCCGTCCAAAAAAGAAAAAGAGAAACAGCT
GTCACCTCCCGCAGGACCCAAATCCTCTCTCTGAGCACCGTCATCCACCACATGGCTNGG
CCTNGNTTCCAAGANCNAGTCNANCCTTTNNNGNCTTANTTNNAGGTNGANNCCGCNNNT
TTCNNCCCAAAGGAGACAGCCCCTGCTCCTAGATGCCCTTGGCCTCCGCAGTGCAGCCCC
CAGGTGTCCTGACTGAAGCANAGGCCNTAGCCCCAT

Sequence 1947

NCGCGTCCGAAGTGGATGAAAATTGGTACCATGGGGAAGTCAATGGAATCCATGGCTTTT
TCCCCACCAACTTTGTGCAGATTATTAACCGTTACCTCAGCCCCACCTCAGTGCAAAG
CACTTTATGACTTTGAAGTGAAGACAAGGAAGCAGACAAAGATTGCCTTCCATTTGCAA
AGGATGATGTTCTGACTGTGATCCGAAGAGTGGATGAAAAGTGGGCTGAAGGAATGCTGG
CAGACAAAATAGGAATATTTCCAATTTTATGTTGAGTTTAACTCGGCTGCTAAGCAGC

TABLE 1

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TGATAGAATGGGATAAGCCTCCTGTGCCAGGAGTTGATGCTGGAGAATGTTCTCGGCAG
CAGCCCAGAGCAGCACTGCCCCAAGCACTCCGACACCAAGAAGAACACCA

Sequence 1948

CGCGTCCGAGTATTTGAAGTGATGCTGGCTCAGACCGCTCCCACTATGCAAAATGTAACC
CATACATGGATTCTCCACAATCAATAGGTTTTGCTGAACTGCTGAGCCTTGGCAGTGGGC
GCCTTTGAGGCTTAGAAGTGCCNNAAGNNTCTNNCANNNGNTNNCATGCTTTNTTTTT
TGNCGCACTNTTANCAGTCANCAANAAATCCNGGGGNGNTNNTNANCCCCNAAGGCNC
NNGNTNCCACNGTTCAGTGAACTTGCTTCAGAGGCAGAAAGAAGCAGGTTTCCAAGCAA
CAATCAGTGCTCCACACATGCATGCATATGCGCTAGAAGTTCTATTTGATCAGTTGCATG
AAGGAGCTAAAGCTCTTGATGTAGGATCTGGGAAGTGAATC

Sequence 1949

CCACGCGTCCGGAGAGAATGGGCCGCGCGCGCCCGCGCGGGGAAAGCCTGTGCGGGAAC
CCGGGAGAGCCTGGCCCAGGGCCCCGACGCGCAACCACCGACGAAGTCTCTCGG
GTCTGACTCGGAGGCCAACGGCTTCGCGGAGCGCGCATCGACAAGTTCGGCTTCATCGT
GGGCTCGCAGGGCGCGGAGGGCGCGCTGGAGGAAGTACCCCTGGAGGTGCTGAGGCAGAG
GGAGTCCAAGTGGCTGGACATGCTCAACAAGTGGGACAAATGGATGGCCAAGAAGCACAA
AAAGATTCTGCTGCGGTGCCAAAAGGGCATCCGCTTCTCTGCGGGGCGGTGCTTGGA
GTACCTGTGAGGAGGCAAGGTGAAGTTACAGCAGAACCTGGAAAGTTTGACGAGCTGGA
CATGTCCCCTGGGGACCCCAAGTGNTTGGACGTGATGGAACCGTGACCTGCNCCGGCAGT
TNCCATTATGAAGAGTTTTTGTGTCCGGGGGGG

Sequence 1950

NGCGTCCGGCTTTACAACGGGCAAATACTGGAAACCATCGGAGGCAAACAGCTCANAGTC
TTCGTATATCGTACAGCTGTCTGCATTGAAAATTCATGCATGGNGAAAGGGAGTAAGCAA
GGGAGAAACGGTGCGATTACATATACCGCGAGATCATCAAGCCAGCANNANAAATCCCTC
CATNGAAAAGTTAAACAAGGATAAGCGCTTAGCACCTTTCTCAGCCTNCTTGAAGCTT
GCANAAGTTGAAAAGAAGCTTCTGACACAACNCTGGAGACTGGGACATTATTTTGCCA
ACCAAATNGATGCTTTTAAAGGGGAATGACCTAGTTGAANNAAAAAGGAAATTTCTGA
TACNGGGACCAAAAAAATGGCTCNTTTCAAAAAACAATTCCATTTCTTTATTTNACCC
TGGACCACCCCAAGGGAAGTTTTTTCAATTTGGGGAAAAAGNGGAATTTTTGG

Sequence 1951

CAATNCTTGAACCAGGAAGGCGGAGGTTGTGCGGGGCTGAGATTGCACCACTGTGCTCCA
GCCTGGGCGACAGAGGGAGTCCCTTTCTCAAAAAAATAATAAAAAATAAGATGGCAG
TAGGAAGGTTTCAAGCTTGAGATGCTGTCTTTCTCTGTTTTATGCATAAATACAACGA
AGACGGGAGAGGAGATGGAAAGCAAAGATGATTAAGTGAATAATTGTGGGAAACAATAG
AGGGATAGACTTTGCTTATAGGGGATGTGGACAGAGCAGAAAAATGGGAGGAATGGGGAG
GATTCAGTTAGAGAAGGAAGAAACCGGTCCAAGGGGCTGGGGCTTTAGGCCCTGGGGCCT
CCAGTGCCCGTATAAGGCTGTGGCAGAAGCCCTGCCATTTCCGTTCTTTCACTCCCTA
TNTTACCCCTTACACCTCCCAAAAC

Sequence 1952

CCGCGTCCGGGTTTTTGGCCTTATTTTCTGGCTTTTCTTCTCCAACTTTGAGGCGT
GATTTTATTTCATTGAAGAATCAATACATATTTTGTTCAAAATGTTTGAAACAAAAGACA
TAGATGGTAGACTTTTATTAACATATATGGATGTGGAAAGCACATATATTAATGCAGT
CATCCCTTTTCAAGTGGGAAGAGAGCAAACAGTTGATTTTTTAATTCATCCTTAGTACA
CAGAGAATATCTTTNCTCAAGGAATATACCCTGGTTGGAGCTTTAAAAAAGAATGGTTT
TGGAACCATTTTCATTTTCCCAANAAGGTTGCTATTCTTGGGGTAANTGGGGNATACCN
GANTGNTTTTCCNGGGGGGTTTTGGTGGTGGGGGTAAAATTGGGGNTTTTTTTTT

Sequence 1953

GCGCCGAGGGGTGTAATGCATTNGCAGCAAGAGCTATGAGAAATAACTTTAGACATTATT
TCATTGAACCTTCCCAACTGAAATTATTTTATGATGTTATAACATGGATAGTAACTCAAG
TAGCAATAAGTTACACAGTTGTGCCATTTGTGCTTCTTTCTATAAAACCATCACTCACGT
TTTACAGCTCCTGGTATTATTGCCTGCACATTCTTGGTATCTTAGTATTATTGTTGTTC

TABLE 1
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CAGTGAAAAAACTCAAAGAAGAAAGAATACACATGAAAACATTCAGCTCTCACAATCCA
AAAAGTTTGATGAAGGAGAAAATCTTTGGGACAGAACAGTTTTTTTACAACAAACAATG
TTTGCAATCAGAATCAAGAAATAGCCTCGAGACATTCATCACTAAAGCAGTGATCGGGAA
GGCTCTGAGGGCTGTTTTTTTTTTGATGTTAACAGAAACCAATCTTAGCACCTTTCAA
GGGGTTTGAGTTT

Sequence 1954

TCGCCCCGCGTCCGGTTAAACTGCCTCTTTAGATGTGGATGCCTTAATGCTGTAACACA
TTTGAAAACATTGGCAATACTTAAGTTGCTGCCATGATTACAGATGGAATTATTGGCTAC
CAAAGAGACGCAATTGATGATGAGAAGCATGATTCTTGCTTCCATATAACCAAAGTTAAT
CTTAATTGCAATTGACTCCGTTTCCTTGGTAGGGATAGACTTTCTTCAGATTCCAAGTG
CTCTCTTAAATGGCAAATTAAGTTAAAGAATACTACTGCTCCATTCCCCTCACTTATTCT
CCAGTTAATTGCTTGTGAGTTCCATTTCAAGAAAGCAGTGATGTTCCAGGTTTGATTCA
GTTTTCTGTGCACACTATTGCCAAATTTTTTTTAGCAAAGATTCTGCACTGGAACGTA
GACAGTTGAAAACAGTACTACCTACTAGAGGGTATGGGGTTTTCTTTCTCCCCGCTTTC
ACCTCTTTCTTTCCAATTC

Sequence 1955

CCNCGCGTCCGGCTCTGCCAGTCAACCGGTCTCCTCCGGCTTCCCTCCGGCCAAACAGCG
CGCTCAGGCTCGCCTCAGGCCCTCCAACGGAACAGGAGTCGAGGGGCAGTGAGGCCGGG
ATGCGTGCGAGCGCGGGGCGCGGCTGGCGCTGGGCCGTGGGGGCGGGGCGGCGTGCGTGC
CAGCGGCCGTGCGATTCTGTGAGGCCTGCTCTGCGCCGCGGGGAAGCGCGGGCGACGCT
ACGCTGGACGTCCTTACCTGCCGGAGGAGAGAAAGTGCCGTCAGCTGTAGGGG

Sequence 1956

GCGTCCGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGCGGAC
GCGTGGGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGAGAATGTGCTATACCCC
AGAAATTCATCGATCTGTGATGGGCCCAAGGTTCCAGAATCCAGCAGATTACTCGGG
ATTTAGTGTTCAAATTAATTTCCAGACAGAGAGGAGAACGCAGTTCACAGTACAGAGC
CAGTTGTCCAGGAGAATGGGGACGAAGCTGGGGAGGGGAGAGAGGCTAAAGATTGTGACC
CCGGCTCTNCAAGGAGGTGTGACATCATCATCTCTGGCCGGAAGAAAAGTGTGAGG

Sequence 1957

CCACGCGTCCGCTGGAGGCACTGGACGAGATGCTGACGCACGACATCGCCAAGCTCATGC
CCCTGCTGCGGCAGGAGGAGCTGGAGAGCACCGAGGTGGGCGTGACAGGGGGGCGCTTTTG
AGGGCACCCACATGGGCCCGTTTGTGGAGCGGGGACCTGACGAGGCCATGGAGGACGGCG
AGGAGGGGCTCGGACGACGAGGCCGAGTGGGTGGTGACCAAGGACAAGTCCAAATACGACG
AGATCTTCTACAACCTGGCGCCTGCCGACGGCAAGCTGAGCGGCTCCAAGGCCAAGACCT
GGATGGTGGGGACCAAGCTCCCCAACTCAGTGCTGGGGCGCATCTGGAAGCTCAGCGATG
TGGACCGCGACGGCATGCTGGATGATGAAGAGTTCGCGCTGGCCAGCCACCTCATCGAGG
CCAAGCTGGAAGGCCACGGGCTGCCCGCCAACCTGCCCCGTNGCCTGGTGCCACCCTCCA
AGCGACGCCACAAGGGCTCCGNCGAGTGAGCCGGGCCCCCCTT

Sequence 1958

ACGCGTCCGCCTGGCTAACATGGCCGAAAGGTCGTATTCTCCGGGGGAGGACGGAGGCC
GGAGAGGAGGGGTGGAGTGCCTGGTTTTCCAGTCAGGCGGGCCGGAGGGCAGCCCTCAAG
AACGGCCCTGACCGCCCCGCGGGGTGAGGGGCCCTTTCTGGGCAGGACCCGCCCTTGGTC
CCGCAGAGCCTTGGTACTTGGACCTGAACCTTGCTCCGAGAGGGAGTCTCGCGGACGTC
AGCCAAGATTCCAGAATGACTACTATCTTGACTTACCCCTTTAAAAATCTTCCCACTGCA
TCAAATGGGCCCTCAGATTTTCCATAAGACCTCTGAGCTGTTCTCCAGCTACGAGCT
GCCCCAGCTGTCCAGACCAAAACGAAGAAGACGTTAGCCAAACCCAATATAAGGAATGTT
GTGGTGGTGATGGTTCGCACTCCATTTTTGCTGTCTGGCACTTCATATAAAGACCTG
ATGCCACATGATT

Sequence 1959

CCACGCGTCCGGGGGACATGGTGGTGAGCAGGACAGAATTCCTGTCCTCATGAGTCTTAC

TABLE 1

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ATTCTAGAAGGAAGGAGCAGATAAAATCTAAATAAGGTTATGAGATTGTGACGAAGCGTC
CGATTACACCTCAACAAGAAGGCAACTGACAAACAGCCTTATAGCAAGCTCCCAGGTGTC
TCTCTTCTGAAACCACTGAAAGGGGTAGATCCTAACTTAATCAACAACCTGGAAACATT
TTTGAATTGGATTATCCCAAACCTTTATTTTCTTCGGTAGCACCAATGAAAAGA

Sequence 1960

TCCGGTGCAGCCGGGCTAGCTTCTCCTGCATCTCCCGAACGTGCTCCAGCTGCTCAAAGG
AGCNTTCCCTCCCTGGAACGAANCCCTGNCTGAACCCTNNNAAAGAGNCCTGGAACCCT
GGAACCCTGGAACCATGGNCCCAGCCNTNCCCCANGNACTGGGCCCTACAGCCCTATCCA
CACACCCGCTGAAACCAGCCCCCAGGACTCACCGAAGGCCNGGGGGCGGCCAGAGTGGAA
ATCATTGAGCAGGTTCAAGAGTCCCCCTCCATCTNATAGACATCAGTCACCTCGGTGAG
GAAGGAGTGCAGGGGCGTGCCTGCAGAGCCGCTTCCACCTCCAGCCAGGACT

Sequence 1961

NGNCGCGTTCTCGTCTCCTCCCGGCCGGCGGAGCGAGTGGAGGCTGCAGCCAGCTCGT
CTCGGCGCCCGCTCGCCGTNCGAAGCCCCCGCCCCGCTTCCGCCGCTCGGAATGAG
CTCCCGGAAAGTGCTGGCCATTAGGCCCNAAAGCGGAGGCCGAAAAGAGAGAAACATCC
GAAAAAAATCAAGCAGAAGATTGAGCTGCTGATGTCAGTTAACTCTGAGAAGTGCCTCT
CTTCAGAAAGGCCGAGCCTCAACAGAAAGCTCCTTTAGTTCTCCTCCTCCACCGCCAC
CACCACCACACCGCCACCTTTGCCAGACCCACACCCCCGGAGCC

Sequence 1962

CGCCACGCGTCCNNCCCGCGTCCGGGAGAAGATGGAAGCAGTGCCCGACGTAGAGCGCA
AGGAGGACAAGCCCGAGGGGCGAGTCACCTGTGAAGGCTGAGTGGCCAGCGAAACCCCGG
TGCTGTGCCAGCAGTGTGGCGGCAAGCCTGGCGTCACCTTACCAGTGCCAAGGGCGAGG
TCTTCTCCGTACTGGAGTTTGCACCTCAAATCATTCTTTAAGAAAATTGAGTTCCAGC
CTCCAGAAGCCAAGAAGTTCTTCAGCACAGTGCGGAAGGAGATGGCGCTGCTGGCTACCT
CACTGCCTGAGGGCATCATGGTCAAGACTTTGAAGATAGAATGGACCTCTTCTCAGCTC
T

Sequence 1963

TCCGCGGGNGCGTGGGCGGCCACTCATTTGCATTATCTTAAATCACAAATAATTACTTAA
TTNGCTGGAGTGTGTGCTTTGCACTTTTATACCAGAGTAAAATTTGTATTTAAACAAA
AAATAAGAATGCCATCACTAGGAGAAACACTCCTCACAGAAAACACACACACACACACA
CACACACAATTTAAAACTGAGTAAATTTAAATGTATGAAAGGCNCCACAAATTGATTT
AACAAATAAATTTCTTTCTAGCTACTTATGTCTGGCCTTATTTTGAGCGTTACAATT
TTATTGCCTTCATTTGCCTATTTAGACTGATGTAGTTTGATATGATGAAGT

Sequence 1964

CTNTAGGGAGNCGACCCACGCGTCCGCCCCGCGTCCGGTTAGTTCTACCTGGTGCCCATG
TTCTGATTGTGTGTGGGATTGCATGGTGTCTGATTGCATCTAGGTGGAGCGGATGGAAT
GTGCTGGGCCACTGTTGGGTGGAGAGCAGCACATTCTTACAGAGGAGATGGAGCGTTATG
AGCATAGTATGTGGATAGGTATCTTCACCTGCCCGCCCCCTGAGTCAGCCTCCTTGACTTG
ATAGCTTGAAGAATCCTTTTCCACTGAAATAGAGGATAATTAATTGACACATCTGAAATC
CCCAATCAATCAATCAAGAGAAAGGTAGAACTAAAACTCCTTAACCTTACTGTTGCTTAC
ACCCCTGAAAGTCTGTTTTT

Sequence 1965

CGTCCGGCGCCCTCCAGCCCCGTCCGGGAGTCCCCGGCCCGCTGCGGTGCCGGGAGTACC
TCCAACCCCTGCNCCCCNNANGGAGCCNAGGGGCTTAGCCACCAGGGCTCGGAAGTGG
GGCCGAATCCGGTGCNNGNCCNNNNNNNAGGNNAGCANAGCCGGAGTTGGGGAGACTGGT
TGCTGAAAAGCCAGGAGTCAAAATGACTGAGCGCTTTGACTGCCACCATTGCAACGAATC
TCTCTTTGGCAAGAAGTACATCCTGCGGGAGGAGAGCCCTACTGCGTGGTGTGCTTTGA
GACCCTGTTGCGCAACACCTGCGAGGAGTGTGGGAAGCC

Sequence 1966

CCCACGCGTCCGGTGCATCAACAGAACGGCCCTTCAAATGTGAGAAATGTGAGGCAGCT
TTCGCCACGAAGGATCGGCTGCGGGCGCACACAGNACGACACGAGGAGAAAGTGCCATGT

TABLE 1

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CACGTGTGTGGCAAGATGCTGAGCTCGGCTTATATNNNNGACCACATGAAGGTGCACAGC
CAGGGTCCTCACCATGTCTGTGAGCTCTGCAACAAAGGCTTCACCACGGCAGCATACCTG
CGCATCCACGCGGTGAAGGACCACGGGCTCCAGGCCCGCGGGCTGACCGCATCCTGTGC
AAGCTGTGCAGCGTGCCTGCAAGACCCCTGCCAGCTGGCCGGCCACATGCAGA

Sequence 1967

CGNCCCACGCGTCCGGCGGTGCCGCGGGGATGGCGGGAGCCGGAGCTGGAGCCGGAGCTC
GCGGCGGAGCGGGGGCGGGGGTGNAGGCTCGAGCTCGCGATCCACCGCCCGCGCACCGCG
CACATCCTCGCCACCCTCGGCCTGCGGCTCAGCCCTNNNNCCNNNNNANNNATGGCNNGN
TCAGGGGGCCTGGGGTCTGGGACAACGCCCCGACCACTGAGGCTCTTTTCGTGGCACTG
GGCGCGGGCGTGACGGCGCTCAGCCATCCCCTGCTCTACGTGAAGCTGCTCATCCAGGTG
GGTCATGAGCCGATGCCOCCACCCTTGGGACCAATGTGCTGGGGAGGAAGGTCTCTAT
CTG

Sequence 1968

GCGTCCGGGCGTGTAACCAGCCGGAGCGGGCGGGCAGCGGCAAGGACCGCCGTGGCGCC
TAGAGTAGCCGACCCGGGGGAGCGCGGGGCGACGCTGGCTGCAGGGACCCGGTGACAGC
GTGAGAGGTTTCGAGAGTACTAGGTTTTGACAAGCTTGCATCATGCGTGAGTATAAGCTA
GTCGTTCTTGGCTCAGGAGGCGTTGGAAAGTCTGCTTTGACTGTACAATTTGTTCAAGGA
ATTTTTGTAGAAAAATACGATCCTACCGATAGAAGATTCTTATAGAAAGCAAGTTGAAGT
AGATGCACAACAGTGTATGCTTGAATCTTGGATACTGCAGGAACGGAGCAATTTACAGC
AATGAGGGGATTTATACATGAAAAATGGACAGGGATTTGCATTAGNTTATTTATTNCAN
GCCANNCCCAATTTTACGTTTAAAAAACCTGNNNNAAAAAAATTTTTTGGNTAAAAAN
CCNTNTGTNTCCCCAAAANTTTTTTGGGNNAAAAAANNGGCCCTCCNAAAAA

Sequence 1969

CCCACGCGTCCGCACGCCAGTGCCTCCCTTTACCTACTAATGAGGCAAACTTTGAGATT
GGGAATAACTTTGCCAGGGTTAAATGCAGGTAACAATGTCACTATCCTCCTTGGTGGGC
ACATCTNANAATTTTAAATGAAGAATTCTTAAGACNGTCTTTCTAAANNACTATTTNGTAC
ATTATGCTTGAAGAAATNTGNGAATTGAGGGAAACA

Sequence 1970

GCGTCCGGTTTTCCAAGTGCAGCTTTTTAATGGTTAACCTTCATCTAATTTTTTTCTCC
CACTGGTTTATAGATCCTCTGACTTGTGTGTGTTATAGCTTTTGTTCGCGGGGTTGTG
GTGAGGAAGGGGTGATGGCATGCGGAGTTCTTTATCTTCAGTGAGAAANNGGCCCTGCCCG
CCTGAGAGCCAGCTTNCGCGTTGGAGGCACCGNGTTCAGAGAGCTGCTGAGCGCCACCCT
CTACCCNGCTGACAGACAACACAGACCTGTGCCGAAGGCTAANTTGNNGCTTTTACGAC
CCTACCCOACCCCTGTTTTAGGGGT

Sequence 1971

CGTCCGGTGAGATTCTCCGTAATGGGCGGGGACAGAGTGCCCTGCAGGAGATTCTGGGCA
AGGTTATCCAGGATGTGCTAGAAGACAAAGTGCTCAGCGTCCACACAGACCCTGTCCACC
TCTATAAGAACTGGATCAACCAGACTGAGGCCAGACAGGGCAAGCGCAGCCATCTCCCA
TATGATGTACCCCGGAGCAGGCCTTGAGCCACCCCGAGGTCCAGAGACGACTGGACATC
GCCCTACGCAACCTCCTCGCCATGACTGATAAGTTCTTTAGCCATCACCTCATCTGTG
GACCAAATTCGATATGGGATGCGATATGTGGCCAAAGTCTGAAGGCAACTCTGGCAGAG
AAATTCCTGACGCCACAGACAGCGAGGTCTATAAGGGTGGTCGGGAACCTTCCTGTACT
ACCGCTTCTGAACCACTTGTGGTGGCTCCTGACGCCCTCACATTGTGGCCATGGCAANC
TGGTGGAGCCCTGGCTGCCCCCAGCGCCATGCCCTGGG

Sequence 1972

GAGGGGAGGGGAAATTTATTTCTCTGCTTTTCTATTATACAAGTTGTTTACAGAACTGCA
AATTAATAAATTACACTGGCATTGTCAGTCCTTAAATAAATTAAGTTCTCAACTTTT
TTTTTTTGCTAAACATTTTTTAAGTATGAGTCCTTTGTTTAAAAAGAAANAGATTANA
ACAGAAAATATTTCTATAAATAATACATGTATTTGGTTTTAGTGCTCCCGCCC

Sequence 1973

TABLE 1

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GCCGACCCACGCGTCCGACATCCCCAGGCACATCCGGAAGGAGGAAGGTTTCCTTTAGTC
CTGCTCCTTCTGCANGNCCAAGAAATTCCTACCATGATGGTCACACTCAACTGCCCTGA
ACTACAGCCACCTACCAAGAAGAAGAGAGTACACGTGTGAAGCAGTGTGCTTGCATATC
CATCGATTTGGATTAAGCCAAATCCAGGTGCACCCAGCATGTCCTAGGAATGCAGCCNCA
GGAAGTCCCAGACCTAAACAACAGATTCTTACTTGGCTTAAACCTAGAGGCCAGAAGA
ACCCCCAGCTGCCTCCTGGCAGGAGCCTGCTTGTGCGTAGTTCGTGTGCATGAGTGTGGA
TGGGTGCCTGTGGG

Sequence 1974

CGCGTCCGCCGAGAGAAGAGGTACGGTCAAGCCCGGAGCCAGGCCGAGCGGGAGCTGAC
CAGGCTTGACTCGGGTACAGAACGAGGCACCAAGTCCCCTTGCGAACCGAAGGGCCTCGCA
GTGGATGGAGGAGGCCAGCCCTGAGGTCAACGCCAACCAGGCTAGCCTGGCACGGGGCC
TACAGGGTGGGTAGGCGGGCGTGCCCGAGCCGTCCAGGGCCTTCCCTCAGGTCCCGGGCC
GAGGGGCCTACGCTGCGGCCCGGCAACAAGGCCCGACTCGGCCCTCGGGACCAGAGCCC
CACCCGATCGGAAGCGGATC

Sequence 1975

GGCCTCAGGGGNNAGNNATCCTGCAAAGACNNACATGAGCCCANAGGGGAAANAGAGNCA
CCTGNGAGTACNNGCCTTTGGGNNTGACCTTGGCTCTCAGCACAAGATATTTACAGCCTN
TGAGCTTGATATTCTAGAATTGNTACAGAGATAGCTCTGGAAGAAATAGACTAGAAGG
ATAAAGGGAAGGAATCATAGCTTATGAAGTTTTTACTCTGCATCAGACCGNTTCTAGN
NCTATGACTTAACGTCTATAGGCTGTAAGGTTCTCTGCGTGAACACTTCTTNTGCGC
TCCTTTCTGCCCCATTCTNTTTAACTCAGTTGCTGAGTTTATTATNCCCTGTGCATCC
CTGGGCATTGNTCATTACATATGGAAACAATTCAAGGAGGACCCTTTGCCTANTTTNCT
TTATCCTCTTGAATTNTGGATGGGAAAAATNTAANTNCTTTTGGCCGCTGCANTNGGG
GNAANTATTGGGCCTT

Sequence 1976

CGCCCCGCGTCCGCGTTGAACAGCTTTAAGAACAATGTGAATGAAATCTTAGCAACTTGG
TTAGTAATCTGAAAAGTCTATTAATGTATACTTGAAATTCTGTTTGTATAAAAATGCATT
TTCCCTTTATTTTAACACTGTGTAAAAGAACATTATGCATGTGAGTGGTTTGAGAATTA
AATGGTTTAATACTCAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAANGGGGNGNCCNTTANNNTNNTTNA
AAAAACCCCNCCNCCCTGNACCCGNAANNAANNAANNNCCNTNGGGGGGGGA
ANCCTNNTTNTGNCCCTTAANAGGGGNCCTCAAAAAANCNATTNCCNCCCNANTTTN
AAAAANNCCTTTTCCCNNTTNAAGNGGGGGGNGGCCANCCCCANAAGGGGTT
TTTNAAGGGGGNAACCCCNNGTCCCCGNCCCCAAAAAA

Sequence 1977

CGCCNCGCGTCCGGGCTGCCGTAACAATCGCCACAAACCTGGTGACTTAAATAACAAATA
TTTATTTTCTCGTAGCTCTGGAAGCCGGAAGTCCAAAACCAATAACTTGGCAGGGCTGTG
CTCCCTCTGGGAGATCTCGGGGAGCCTCCTTGCTACATGTTCCGCTTCTGGGGACTTCTG
GTGGTGTTCCTGGAGGGCCAAGGCCTCCGGGCGGCCCGTGCATTGGTGAACACCTCC
AAAGAGCTCTGAGTCACAAAGCCTTGGGAACTTTATTTTATTCTTTCTAGGACATTATC
AGTAGTCCCGAGGAGACATCAATTACAAACAAAAAAAAAAAAAAAAAAAA

Sequence 1978

CGTCCCGACAGTCAGCCGCATCTTCTTTGCGTCGCCAGCCGAGCCACATCGCTGAGGAC
ACCATGGGGGAAGGGTGAAGGGTCCGGAGTCAACGGGATTTGGGCGGTATTTGGGCGCCC
TGGGTACCAAGGGGCTGGCTTTAAACTTCTGGGTAAAAGGTGGGATATTGGTTTGCCA
ATCAATGACCCCTTCATTTGACCCCTCAAACTACCATGGGTTTACAATGGTTCCNAAT
ATGAATTCACCCAATGGGCAAAATTCCTATGGGCACCCGTCAAAGGGCTTGAGAAACGG
GGAAAGCTTGGTCAATCAATGGGAAAATTCCTNATCACCATCTTTCCAGGAGCCGAGNA
TCCCTCAAAATCAAAGTGGGGGCGATGCTGGGCGCCTTGAGGTACCGTCGTTGGGAAGT
CCTTGGCCGTTCTTTCACCCAACCATTTGGGAAGAAAGGGCTGGGGGCTCATTTTGA
GGGGGGGGGAGCCAA

TABLE 1
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Sequence 1979

GAGTGTAGTTACTTCGGTCTTGCCTCACTGGGAGGCCACGTTGGTGACGATGCACACGAA
GCCCCGGTACTTGTCCAGGTTAACCATGTGCCCGTCCGATGTCCTTGGCGGAAAACTCGT
GCATGGAGCGCGCACAGCGCCAGTCGTCCNNGGACGCGCACGGGTCTCTGGGACTTGGGAC
ATTCGNGGATCTCCGGTCGCAAGCTGCGGGGACAAGGCTTCTTCCGCCGGCGCCGCCGCC
TCCTGCGCCTGCACGCTGGGGCCTTCCGCCGCCGAGGGGCTCGCGGCCGCTAGACTA

Sequence 1980

CGCGTCCGATCGGAAGTGGCGCTCGTGCACTCAACTTGTTCCCGCTCATGGAACCCCTCT
TAAAAAGACGCAGGGCACCTGTGAGCGCAGGAGCGAGCCTAAGGCCACCCAGCGGCAGC
GCCCGTGTCTGGGCACTCAGCGTGCTGGGCAGAGCAGGTGCGATGGCCCCAGTCCTAGC
AGCCCTCGCCCATGTCCTGTGCCCTTACATGGCTCCCGACTGTGCAGGGAGCCGATACG
TTTGCTGATAGCAATACTGGAACCAACCCGGGTGCGATGGCAGTGAGGAGACTGCCAGTG
CCTTTGGGGCTGTGCTTGCAATAAAGAAAGAATTTCTGGAAAGGCAGTCTGCAAAAGAG
GGAACCCGGTGACTCAGAAAGACAGGATGTTTTGGTAATTTACCCNAAATGTGCCATCC
ACCATAGTGCTTTTTCTCTTGCCTTCGGCTTGTGTAATCTCACAATTATGGTATTTA
ATTCTCAAAGAAATATGTATCTGTTAGCCCGNTTGGTGACACTTATACAGATGATTAA

Sequence 1981

CNCGCGTCCGGTCAAGCGAGGACGTGGTGGGTCCTCTGGTGCGAAATTCGGATTTCCT
TGGGTCTTCCGGTAGGAGCTGTAATCAATTGTGCTGACAACACAGGAGCCAAAAACCTGT
ATATCATCTCCGTGAAGGGGATCAAGGGGACGGCTGAACAGACTTCCCGCTGCTGGTGTG
GGGTGACATGGTGATGGCCACAGTCAAGAAAGGCAAACCAGAGCTCAGAAAAAGGTACA
TCCAGCAGTGGTCATTGACAACGAAAGTCATACCGTAGAAAAGATGGCGTGTTTCTTTA
TTTTGAAGATAATGCANGAAGTCATAGGTGAACAATAAAGGCCGAGATGAAAAGGTTCTG
GCCATTACAGGACCCAGTAGCAAAGGGAGTGTGCAGACTTGTGGGCCCCCGGATTGCATC
CAATGCTGGCAAGCATTGCATGGATTCTCCAGTATATTTGTAAAAAAN
NAAA

Sequence 1982

GCGTCCGTGGTAACGATTGGCCCTAAGAAGCCCCTGCCTGACCCGTGAGCATTGTGGAAC
CCAAAGATGAGATACTGCCCACCACCCCATCTTCAGAACAGAAGGGTGGGGAAGCCAGA
GCCCGNCTGCCATGCCCCAGCCAGTCCCCACAGCATAACAGGGTCTCCTTGGCAAGCTGT
ATTCTGGAGTCTGGATGTTGCTCTCTAAAGACCTTTAATAAAATTTGTACACTGGACTT
TAAAGTATTGNTCACAAGGGTTATGCAATTCNNGNCANG

Sequence 1983

CCCCGCGTCCGTGACAATCGAGTAGTACTCCCGATTGAAGCCCCCATTCGTATAATAATT
ACATCACAAGGACGTCTTGGCACTTCATGAAGCCTGGTCCCCACATTAGGGNTTTAAAAA
AACCAGGNATGGCAATTTCCCCGGGACCGGTCTAAACCAAAACCCACTTTTCAACCGGC
TTACCACGGACCCGGGGGGGTATACTTACGGGTCAAATGGCTTCTGGAAATCTGGTGGGA
GGCAAACCACAAGTTTTATGCCCATCGTCCTAAGAATTAATTTCCCTAAAAATCTTTGA
AATAGGGCCCGTATTTACCTATAGCACCCCTCTACCCCTCTAGGAGCCAAAANAAAA
AAAANAANAANNAAGTGCGGCCCGCTAGACTTAGGTCTAGGAGGAAAAAACCTTTCC
ACACCTTTCCCTGGAACCTGGAAACATAAAAAATGAATGCAAATTGTTTGGTTGTTAACT
TTGGNTTATTGGCAGGCTTATAATGGGTTTACCAAAATAAAAGGCCAATAGGCATCACC
AAAAATTTTCAACAAAATAAAAGGCATTTTTTTTTTAACTGGCATTTCTAGTTTGGNG
GGGTTTTGGTCCCAA

Sequence 1984

CCGAAAGAATATCTGTGTGCTTAGGGAGGAACTTTTTGATCTGCAGAAAAGCCAGAAGA
CATCTAGGACATCCATAAAAAATTCATCAGAGAGCATTTTACTACTGAGCTGCAAAGGGAA
AACTTAAATGGGATATGAAAAGTGAAGAAAGTGATCATAGGGAGAAAAACCATTTTCA
ATGACAAGAGCACCTCAAAGGCAGCAGCCTCAAGGAGCAGCCATGGCCCCAGACTTGTGC
CACGGATGCAGAAAACCTAATGGAGGAGGCTGAGGTCAGAATGGGAAGAGTTTTTAAAAA
ATAAAAAGGGGAGCTAATATGTGAGGGACCAAAAAANNNNCANAAAAANAAAGTGCCG

TABLE 1

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GCCCGCTAGACTAGTCTAGAG

Sequence 1985

AAGCTTCCTGGTTCAAATGTGCCATTTCCCGGGTTGATGCTGCCACACTTTGTAGAGAGT
TTAGCAACACAAGTGTGCTTAAGTCAGGCGGTAGGGAAATCCCTCACTAAAAGCAGGAAG
AAAGGTTCCAATTCAAAAGGTGCCCAATGGATAGGAAGTCAAACAAGGAAAGGGTTAAAT
GGTTNGGAAAACCACAAATCAGGGTGGTGGGATTTGGGTGCTTACTTTTGNACAAAAA
GGGTCCCCCCTGGTGGGTCTTTTTGGTTCAAACAATTGGTACAAATTGGTAAGAACTTC
TTGTCAAACCACTTAAATTTATTTTTGGTCTTTGGAGGTTTTTACTTACAAAGGATGGA
NGACTATTGGGAATCCCCGGCATGCCCTGGAATTCCTAAAAGCCAAAGGGGGTCTTGTA
AGGCCAACGCTGCTTCTTCTGGAGGACTTTCATTTCCTTTTCTGGATTGGGCAACACCG
TGCAAGGCTCATGGACAAATCTGGTAGGGATAACAAATTCAGTGGTGGGANTTTCCACTTC
TTTTTCAAGTCCTTTCATGTTAAAAGGAATTTAAGAACACCCACATACAA

Sequence 1986

GNGTCGACCACGCGTCCGGAGCAGCAGCCATGGCCCTACGCTACCCTATGGCCGTGGGCC
TCAACAAGGGCCACAAAGTGACCAAGAAGCTGAGCAAGCCCAGGCACAGCCGACGCCGCG
GGCGTCTGACCAACACACCAAGTTCGTGCGGGACATGATTCGGGAGGTGTGTGGCTTTG
CCCCGTACGAGCGGCGGCCATGGAGTTACTGAAGGTCTCCAAGGACAAACGGGCCCTCA
AATTTATCAAGAAAAGGGTGGGGACGCACATCCGCGCCAAGAGGAAGCGGGAGGAGCTGA
GCAACGTAAGTGGCCGCCATGAGGAAAGCTGCTGCCAAGAAAGACTGAGCCCTCCCTGC
CCTCTCCCTGAAATAAAGAACAGCTTGNCCGGATAAAAAATNAAAAAAAAAANAAN

Sequence 1987

GCCACGCGTCCGCAGGGAACGTGATTAGTGAAAGGAAGATAAACGTGGATGTTACTCCAA
AACTTCGTTTAATGAATGCTTAAAGAATTCAAATTTATCTGCCTCTCTTGTAATTTGGA
TCTCTTCTTAATGTACATAGTGCTAACATGAAGACCTTTTTCTGCACTATATGCAAACAG
GGTAACATACTAAAACAAAGCCACTTTCAATCTTCAATCCTTGAAGGTATATCTAGGTTT
ATGACAGTAATTGTGTTTACATTTTATGGTGCCTAGTATTGACAAAATGTTATTTCCCTA
CATTAAACATGACTCCATAGACCTTTTCATTTGTGGGGTTTTTATTTCCCTATGATGTATA
CTGCCACTAACCTTNCAAAAATTACTTAGTATTGCAAAGTCAGGGAATCATCAGGGAACG
TTAGCTTGGCCAAAATACTTGGTCTGGTTTTAAACCCTGTCTNAGGTCTACCAAACCT
GTTCAAGGTCTACCCAATTTAAGGGGCAAATTTGGGGNAAAAAGGAAAAAAT

Sequence 1988

GGTGTGACCCNCGCGTCCGCGAGTCCCGCGTTCTCTCCTTGAATCCACTCGCCAGCCCGC
CGCCCTCTGCCGCCGACCCCTGCACACCCGCCCTCTCCTGTGCCAGGCAAGGTGACCCC
ATGGCAAGGCGCAAGCCAGAAGGGTCCAGCTTCAACATGACCCACCTGTCCATGGCTATG
GCCTTTTCTTTCCCCAGTTGCCAGTGGGCAACTCCACCCTCAGCTGGGCAACACCCAG
CACCAGACAGAGTTAGGAAAGGAAGTGTCTACTACCAGCACCATGCCCTACCAATATCCA
GCACTGACCCCGGAGCAGAAGAAGGGAAGCTGTCTGACATCGCTCACCGCATCGTGGCAC
CTGGCAAGGGGCATCCTGGCTGCAGATGAGTCCACTGGGAGCATTGCCAAGCGGCTGCAG
TCCATTGGCACCGAGAACACCCGAGGAGAACCGGCGCTTCTACCGCCAGCTGCTGCTGAC
AGCTGACNACCCGGGTGAACCC

Sequence 1989

CGTCCGACAACATTTGGCATNAGGGTTGTATCTGTTGGTGGAGGACACAACGCCAAAAGG
AAATGGGATTTCTGGTTAGGCCTGCGGCTTGGCAGATGATTGTTATGGGAAAGACACTG
AGTCTGTTTAGGCAATTTCTTCTTTACTAATAAAGTGTTCTATTTTGAAGCAATG
CTGAGTTGTGGACATGTGTATAAACCGTAATGCTGTAAGTTAGGCCTCTCTTGTCTAGAA
TCTCAGCCTCTTCATACTCTCTCCCCCTTTTTTGGCATATTATTTTCTTATCACTAACT
ATATATTTTACCTGTCTCACTTACTATCTGTCTCTCCTCTCAGAGTGTTACTCCAGGAGG
GCAGAGATAACTGTTTAGTCCAGGCTGTGCCTTTCCGGTGTCTAAAATAATGCCTGGGTGC
AAAATAAATATATCTTGAATGAAATAATGAAGTAATCTTTAAATGGTGTCTCCGAGCATA
ATTTTCTATAGTAACACATAGTTTGCAATTAGTTGTCTCTTTCAGGGATAATGGAATTG
GTCAACATAAGAAAA

TABLE 1

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Sequence 1990

NCCCCGCGTCCGAATTTGTTTTATGGATTGAATNATGTCTCCTCTAAAAAGATTTATTGA
TGTTCTAACCTCCATGTCTCGTATTGTAACCTTATTTGGAATAGGGTTGTTGCAGAAGT
AATTAGTTACATTAAGATGAAGTCATGCTGGAGTAGGGTGAGCCCCTAATCTAAGAGGAC
TGGTGTCTTATAGGAAGAGGAAAAATGCCACATGAAGAGAGAGAGAGATGCCCAAGGAGG
TGTCATGCTGCAATGAGGGCAGAGATTGGAAGTGTGCAGCTGCATGCCAAGGAACACCAA
AGATTTTCAGCAAACCTACTGGAAGCTAGGAAAAAGCAAAGAATTCCCCTAAATATTTTCAGT
GGGAGCATAGCCCTGCCAACACCTTATTTTCAGATTTCTATCCTCCACAACCTATGAGGCAA
TAAGCTCTGCTGTTTTAAGCTCCTCAGTGTGAAGTATTTTTGTCATGGCAGCCTTAGGAA
ACTAACACAATTTACAAACAGATTAAGTTCACTAATCAAAGACAGCCCTTGCAATTGGG
GTTTTTTTTT

Sequence 1991

CCGCGTCCGGCGGGTGAGCCGCTGGCGCGCCGGGCGGGGCGGGGGATTGGCTGAGGGCGA
CGCGAGAGAGGGGAGACCCGACTGAGGAGAGGACGGGGTGAGGGTCCCGGCCGAGGC
TAGCCTGAGGAGACCGGGGGCGGAGGGGAGACCCGGGCCGCGGAGGAAAGGGATGGAGGA
GAGGAAGCCGCCGGGCGCCAGCGGGACCCCGGGCTGAGGGGAGAGGCGCCCCAGGCCGG
GTGAAAAGTGCCCGAGGAGACCTGGGCTGGGCTGGCAAGTCCCGGACCGGGGAGGAGGGG
AGCAGCCCTCCGATGTGAGGGATCGCAGAGGAATGAGCTTCGTTCTGGATTAACAAAAA
AAAAAAAAAAAA

Sequence 1992

GTCACCACGCGTCCGCAGCGCACGCCCCNTGCCCTGAGAACAGGAAAGGGCCCGGAAGGG
CTGACTCACCGGGCCGACNCTCACACGAAAATGGGATGCACTTTATTTGCTGGTGCAAAG
GCAGGTGAGGGTGCTNCTGNGTGACCGNTGGCCCTNCTGCCTGGNGGCGCTGAAGGGAA
GGAGCCAGTGAGCCTGACCCCGGGAGGGGCGGTCCCCGTGTCCGCGTTNGGCGGGGCC
CACGCGGCTCCCCANGCCCGGGTCTGGGGCCCCAGGCTTTCCCTGNCTNGNGGNCN
CNTNCCNNGCTTTGGGNTNCTTGNNTNGGNNTTTTTAATGCCAGNNNTCANNACATAANT
GCNTTNTGAAAGAGGTTCCAGCTATCACTTGTAACCATATATATATACATATATATTCTA
TCTACAAAGTGTTTTATTNCAAAGATNTTTCACCGGTGAATTCAGTCCCCGGCCGCCCTT
NTGACCATCTGTNCCCNCTCCTTGTCGCCCGCCCCGGGG

Sequence 1993

TCNCCNCGCGTCCTTGATATTTGAGAAAAATCATGTGAGTCATTTTTCTGTTTCTCTT
TTCTCTTAACGATTATCACTGTAATCTGAAAGGTAAACAATTAGTCAAAATA
TTATTGCCATCATCTACCTGTGTTATGAACTACTTATTCATAGTTAATTCTCATTAA
ACTTACATTTCCATAAAGAAAACTCAAGTATTAATAAAGAGACTTTACTGGCTTAAGAG
GGCTGTGAAAGATTTTTGATAGTGAATCATGACCCTAAGGGAGAGATTTGTGTGATAAAA
GTATTGTATATAATAGATCAGCGATTTTTGTAAAGGCAAACAGAATTTGTAAGTTGGCAGA
TCTTCCTAAGTTGCAAATGTAATGATGAGCTTGGTGGGAGAAGAATGAGTCGTTCTTGG
AATACCTATGTGCAGCCACTACCCATCTCAATGTCACCTTGTTTGCATTCTTGGATAGCT
TGTATATGTAGTAGTTTGATGAATAATTTAAAGAAAAACACCTAAAATTTGAAAAATGAT
TGTAGGGATCAAAAAGGCAGATGAAATTAC

Sequence 1994

CACGCGTCCGCTGACCTGACCCNTTCCTGATCCNAGGCCNGGTGGTTGTCTTATTGCACC
ATACTCCTTGCTTCCTGATGCTGGGCAATGAGGCAGATAGCACTGGGTGTGAGAATGATC
AAGGATCTGGACCCCAAGAATAGACTGGATGGAAAGACAACTGCACAGGCAGATGTTT
GCCTCATAATAGTCGTAAGTGGAGTCCTGGAATTTGGACAAGTGTGTTGGGATATAGTC
AACTTATCTTTGAGTAATGTGACTAAAGGAAAAAACTTTGATTAACAAAAA
AAAAAAGTGCGGCGGCCGGCGCGCCGGGGTGGGCGGCGAGCGGAGCCGGCCGGAGCGG
GCCGGGCA

Sequence 1995

TCCGACNAAGGAACAAAAGCGAAACACACAAACCAGCCTCAACTTACACTTGGTTACTCA
AAAGAACAAGAGTCAATGGTACTTGTCCTAGCGTTTTGGAAGAGGAAAACAGGAACCCAC

TABLE 1
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CAAACCAACCAATCAACCAAACAAAGAAAAAATTCACAATGAAAGAATGTATTTTGTCT
TTTTGCATTTTGGTGTATAAGCCATCAATATTCAGCAAAATGATTCCTTTCTTTAAAAAA
AAAAAATGTGGAGGAAAGTAGAAATTTACCAAGGTTGTTGGCCAGGGCGTTAAATTCAG
AGATTTTTTTAACGAGAAAAACACACAGAAGAAGCTACCTCAGGTGTTTTACCTCAGCA
CCTTGCTCTTGTTTCCCTTAGAGATTTTGTAAAGCTGATAGTTGGAGCATTTTTTAT
TTTTTAATAAAAATGAGTTGAAAAAAAATAAGATATCAACTGCCAGCCTGGAGGAAGG
TGACAGTCCAAGTGTGCAACAGCTGTTCTGAATTGTCTCCGCTAGCCAAGAACCTATAT
GGCCTTCTTTTGACAAACCTTGAAAATGTTTATTTAAA

Sequence 1996

ACGCGTCCGAAGAGGTATATCCCATACCTTTTCCCCAAATTCCTTGTCATTAATTTTCC
AATTATGCTTCTTCCAAGTGCTGACCATCCAGCCAAACCATGGCTACAGCCCATGAAT
CAGTATACAATGGCGCTACTGGTCATTTCTTTCCATACAAAGTGACAAACCTGGTATA
CTCTTCAAAGTTCTGCCACTGGGAAGATTGCTTCCACTGTCCTTCAGGGATAGGG
GCTATAGAGCTGCAGCTGTCCACTTTCAGGTGGTGCCTGCATATCGTGCATAACCATCTG
TGAACCAAGCCCTAGTCTTGTCTTCTCTGTCAACTGATCATAGGGAACCTCCCATGAGG
CCATCAGTGCAGGCTAAGGGAAAGAAGGCAAGGTGGCAGGAGTGGAGACCATGGACATTT
GAGCTACTTTCTTAGGTAACCTACTTGTGTCTTCAGGACCTGCTCAAGCCAGATCACATA
TATACCACTTTAATT

Sequence 1997

CGCCNCGCTCCGCTACACTTAAGGATGAAGAGAGGAAAAATCTACAGTGTAGGCACAGA
AATGCCTAGAAATGAGAGAAAAAAAACAGGAGCGCATACTGCCTCAGAAACACCAAGA
GTAGTTTGGGAAGAAAGGAGTCAACAATAACAATATCAAAGGAATGAATGGCCAACAGT
GTAGCCTCAAGTAGGGTAGTGTGAGTAGTTGATAGACCAAAATCCTCAGCAAAATACTA
GCGAACAGATTCAACAGCATACTGAATGGATTATACACCATGGCCAAGTGGGATTTATCC
CAGGAATACAAAGGTAGTTCAGCATTAGAAAATCAATCAATGCCAACACACCTCATTAAAC
AGAAAAAGTAAAGAACTGCATACATGATCCCACAATTGATGCTGAAAAGGCATGACAAAA
TCCAACATGCTTTCATGATTTAAAAAATAAAAAAAAAAAN

Sequence 1998

CCACGCGTCCGACACTTGACCCAGAGATCACGCCACTGTCAGCTGCCCTGGCTCAAAC
AATTGCCAGGGAATGGCACCTCCACCTGTCTCCATGGCTCCTGTGGCTGTATCTGTGGC
TCCTGTGGCCCTGTGGCTGTATCGATGGCCCAACCCTTGGCAGGAATCACAATGAGCCA
CACCACCACTCCCATGGTGACTTACCCTATCGCTTCCAGAGCATGCGCATCAGGCCAT
GCCACACTGATGGGGCTAATGGACACTCCCCTGGTATAGCCTCGCAGGGCTGGGGTCAGG
GGGCCCTTGGCCACTCACCTAGCCTTCCCCATCCCTGTCTGAAGGGCTCCCTTGAGAACT
AGGACAAGAGACTACAAGGAGTATGTCCTGAGGAGGGGTTGGGATGGTGTGGTTTTCTCT
CACCTCCCTTTTATGAGGGTCCTCTTGTCCATCTTCAAGCCTCACAGTGGGGGGCTT

Sequence 1999

NNGGCAGGAGAGGTTCAAATGCATTGCATCAACCTACTATAGAGGAGCTCAAGGTAATGG
GGCTGGGTGAAGTGGGGTAGGTGGGTCTCAGAGTGCACATGGCTTCTCATATGGAGCTGG
AAGGATTGGGGAATGAGCAGTAGTGTCTTCCCTGTCAACCTGGGGCTGTTTNTGCCACT
CTTCAGCCATCATCATTGTCTTCAACCTGAATGATGTGGCATCTCTGGAACATACCAAG
TAAGTGAGCATCCTGCAATATAATGGGAGGCTCCG

Sequence 2000

ACGCCTCCAGCCTGGGCAATAGAATGAATGAGACTCCATCTCAAAAATAAATAAATAAAT
AAAATACTGAGAAAAAGAATCTTTATTGTTTCTGTAAAATAAATTTTCTTTTAGCAAA
GCTCTTTTCCCTTTGACTCTCGCCGCCTAGATTTCCGTACCAGGACCACACATTTTAA
GATGCTCCTCACCGCCGTACAGCTCCTGTACAGCCCAGAAAGCTCCGTGCGCACGAAGCT
CATCCAGCTCCCGTGGTCTACGTGATGCTCATGCAGCACTCGCTGTTTCTGCCGACTCT
ACTGACGTCTGACGGAGAGGAGAGCCCGGACAGCCAAGTAAAAAGGTGACCCCTCACCCCA
GCCCTTCCATTCCGTATCCAGATTTTATCTCCTGATTTCTTA

Sequence 2001

TABLE 1
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CCCGCGTCCGCCGAGATGGCGCCCCTGCACTCCAGCCTGGGTGACAGAGTGAGACCTTGC
GTTTAAAAAAAAAAAAAAAAAGGAAAAGGAAAAAAAAAGTTCTACTGTGGGTAAAATGCTATC
ATGCTATCAAACAGCATCACATGCTACAGAGAAGTCTTGTGAAAGGATGTCAGTGTGGCA
AACTTCATTGTCTTTTAAAGAAATTGCCACAGCTATCGTAATCTTCAACCACCACCACCCT
GATGAGTCAGTAGCCATCGTTAACGTTGGCGTAAGACCCTCCACCAGCAAAAAGATTGTT
AGCATTTTTTTAGCAGTGATGATTTATCAATTATACATAATGCTATTGTACACTTCTTA
ATAGACTATGGTATAGTGTAAACCATAATTTATGCACTGGGAAACCAACAAATTCATGAGA
TTCGCTTTATTGTANTTGCTCTGGAATTGAGCCTGCCCGTGTTCCTTGAGGTATACCTGT
GTATTAGGTATGTTCTTGTATATAAAACCCCATTTTTTAGGGTAGGAACTAANGCTTA
GAGTTTGAGCCAATTTTTCCCAT

Sequence 2002

CGTCCGCACTGTTCAAACCCTGTCTATGCTTTAAACTGATGCGAGATGATTTTGTTTTT
GCATAATCAATACTTAAGGGTGCAATCAACTGTTAGTAATTGTGCAGTANAGTAAAGCCC
TGTGGTGTATCAACTACTAGTTAAGAGTCTCAGTTGATTTCTGTAATGTTTGACCTAATA
ATAGCCCGTTTCGTCTCTGACCAACAGAGGAAGCACAGATCAAATCACCTTGGAGTGGT
CACCAGGGGGACAGGGAGCCCCCACCATGTATCAATGGGTGATTTATGATGCCTTCTG
CCCTTTGGCGAGTGAATGGGTTTCCCATAGGGGAAGTTNGGCCTCCCTCCGTGAGCTTGG
GAAAATGTTTTCTAATAGACACAGGGGAGGCCAGTTTTTGTNTNANAGCAATTATTTT
TTCCCAAATTCNTCTGTTTTGGNGGTNGGAACCTGNGGGGGCCCCCGGGGTTTCTGGTTT
TCCTTTTNCNGCNGGAAAATTCTCCTGGCTAAAAANANTCCCTTTTTTTTTTNGGTTTNC
CANAAGCCCTTTTTATAAATGCANNATANTGAATNGCTTGGGGAACNNAAAATAAANTTT
TTTTTCCCANTCAAAAAANAAAAAAAAAAAAAAAAANGGCGGGGCCCTTANA
TTTTTTAAAAAAAAAAAAACCCCC

Sequence 2003

TTNCCATCCCTCAGGTGCTGAGAACCAGTGCCTAGAGAAGGGCAGGAGGAGGATGACG
ACGATGAGGAAGACGATGCTGACGAGGAGGCTCCCAAGCCCGACCATTTTGTTCAGGACC
CTGCAGTGCTGAGAGAGAAGGCAGAGCCAGGCGCATGGCCTTCTCGCCAAGAAAGGGT
ACCGGCATGACAGCTCAACAGCAGTGGCCGCGAGCCCCGAGGCCATGGGCAGAGCCGCG
AGACAACCCAGGAACGCAGGAAGAAGGAAGCCAACAAGGCGACAAGAGCCAACCACAACC
GGAGAACCATGGCCGACCGCAAGAGGAGCAAAGGCATGATCCCATCCTGAGACCTGGTGC
AGGGCCAGTGGGGAGGCAAGC

Sequence 2004

TNCACATTTTCTCCTAAGCACATGGGTCACTCTCAAGGAGAGACCATATGTTAGGTCAC
AAACATTCAAAAAATTGAAATATTATCAAGCAACTACTCTGACCACAATGATGTAAACT
AGAAATCAAAACCAAGAGGAATTTAGAACTATAGAAGCACATGGAAATTAACAATCT
GTTTCTTAATGACCAGTGAGCCAATGAAAAATCAAGAAGAAATTTGCAAATTGTTTGAA
AGAAGTTATAATGGAACACACTATACTAAACCTATAAAACAGCAAAAGCAGGACTAAG
AGGAAAATGTATAGCTATTAAAGTGCCTACATTTTAAAAAATGAAAAACTTTAGATAA
ATCACTTATCTATGAATTTGAAAAAAAAAAAAA

Sequence 2005

CGGGAAGCTTTNTTTAATTAAAGCTGAAACCGAAGCTTTAATTTAATTTAAATAGTTCC
ATGTGCCCATATTGGACAGTATAGCTCCAGGGTTTATTAACCACCATTCCTGGTGATAG
GATAGAGCCCAGCACAACTAATCTGGGCAACAAATCAAAGGGCACAAGTCGCATGTAGG
TTCCAACTCAGTACATTTTAGAGAAAAGGAGTTTGATTATGTAGTAGAAGGAAGAACTG
CCTGGTGGGACTCATGATCTTCCTTTAAGAGCAAGGCTCAAAGACCTGGGGAGTTTTGAT
TTGATGCTATGATGTCTCCTGGGGCTCAGAATATTATGAAATGAGGAGTGAATCTCTGAG
TGAAAAGAACTCAAGCTGCTTGTTCATTGCGGAATGTCTCTAAGAGGTAGAGAGGCGTC
TGTTAAGTGGCTTTGTATGAAGGTTTCAGAAAGGTAAGATGAGCC

Sequence 2006

NCATTTAACTGTAATAGATATAGAAGTATCCTTCAATAACCAACAACAAATGCTTGTTT
CCAACAGGCTCTGATGGTTGTATATANGGAAACCTTGATACCAATACGTCCAGCTGACCC

TABLE 1
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AGAAAAAATCAGAGCTTAGTTAAATCACTGCTGCTCAAGGCTGTTGTATCTGGNNACGC
TCGAAATGGAGTTGCACTCACTGCCCTGGATCAGGATCACGTCGCAGTCCTAGGAAGTCC
ACTAGCAGCTTCTAAGGGTAACTGACATCCAATTCATTAAGAAGGCCTTTGTATGTTCC
TTCACGGTGTACCTTTTAGTCTTCCTTTNTTTTCATTTATTATTACCCAGACTAAT

Sequence 2007

GTCCGGCCCTGCACTAGGGACTGGGGAGGACATGGAGAATAATATATGTACCAGCACAGA
CAGACAGGCAGCTTCTGGAGCCAGACTGTCTGTGTGATCTTGGGTAAGTAATCTAGCCTA
ACCATAGAGATGATAACAATTGTACCTGCCACAGGCTCATGGGGCTATTGTGATGGTGAA
ATGTAAAGATGTAAAGTATAGAGAAAGGATGTAAACTGCCCGACATATAGTAAGGGCCA
TTTAAAGATGCCTGTTATTGTCCCTCTTCTTGAGAGCATATTAAGGGCTCAAATCTAGC
CAGAGTCTGGCGGGTACAGAGGTAAACAAATAATGGCAGGTTGGTTAAGTACTGGACACC
AGTGATGTCCAAGGTCTCTAGGATGCCCTGGAGAAATAATGAACCTCTCTAAGATTGTTT
GGAAGGGGATTTATAAAGGACATCTAGGCTGGGTTTTGAGTGAGGTATGGGGAGTTCGCT
GGTCAAGAATGTANGAATTACAAAAGCANAAAGTGCTTATTTNAAAAAAAAAAAAAA

Sequence 2008

NCCCCGCGTCCGGAAAATATTTAGAAAGCACCTTGAAGATTAGTATTTTTATGTAACCTT
CTGTTGGAGAGATGTCTTCAGGAGACTGAAGTAGAAGAGCGACTGTCAAATGGAAAGTC
CCAGAGACATCCAATTTATGTAAATCAACATCACCTGAATTCAGAATCTCATCCAGATTT
CAACAAAGACTTCTGAATGCCAACAAAGAAGAGGACTGAATTTACAGACTCTCACTCTAA
CAATATATGCTGTTCAATTTGAAAACAGAATAAAATTATTTTGGCAGAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Sequence 2009

AGAGTGTCNAGCTGGCTTTCCTCACTTGGGAAAAGGGTACTGCCAGTCTAAGCAGCCTC
CTCTGTACTCAGCCAGGACACCCAGCGCTGGGACCTGTTTGTGTCTGTTTGTCTTCTT
GGGAACGGCACAGTCACTCACCTGCCATTTGCGGAAATGACCTGGTGCATTTGACTGT
TAAGCAATGCGTTATTGCTGTAGTCAAGGTTAGTGCAAGCAAGGAAACATTCCAGTAAG
GTATTTGTTTCCATTTTCTGTCTGTGCTTCTGTGCAAACTTGCTAGGACTTTAGTGGCC
AATAAAAAAGAAATTTCTAGCTTGATCGACCCACGCGTCCGGTAATGATTGATGAGGACAT
GACTGCCCGAATTAGCATGGCTGATGTCAAGTTCTCTTCCAATGTCCTGGTGCATGTA
TGCACCTGCCTGGGTAGCCCCGAAGCTCTGCAGAAGAAGCC

Sequence 2010

GCGTCCGACAAACATAATGATCCGTGACAGTGACCTTAATATATAAATGTGTGTGTTGTG
ATTGTTCTACTGACCAGCCATTTCTGTCTCCCTCTTCTTATGCCTCCCTGTTAAATTAG
ACACAACAACATTGAAATCAGACCAATTAATAACCCTACAGTGGTCTCTGAGAGAGGCTA
ACAGCTAATCCTCTTGTGCTAAACAGCCAAATTGTGAATGCAAAGGAAAAGTTCTCAAAG
GAAATTTAAAGTGCTACTCCAGTGAACACATGAATGATAAGAAAGTGAAACAGTCCGGGC
GTGGTGGGTACGCCTGTAGTCCAGCACTTTGGGAGGCTGAGGTGGGTGGATCACCTGA
GGTCAGGAGCTCAAGACCAGCCTGGCCAACATAGTGAAACCCTGTCTCTACTAAAAATAC
AAAAATTAGCTGAGTGTGGTGGTGCACACTTGAATCCCAGACACTCGGGAAGCTAAGGC
CGAGAGAATCACTTGAACCCAGAGGTGGACATTGCAAGTGAGCTGAGATTGTGCCACTT
GCACTTCAACCTGGGTAACAGAGAGAGACTCTGTCTCAAAAAAAAAAAAAAA

Sequence 2011

GTCTATTAACATACGGAGCTGAATCTGCCGCAGCTNGAAATGCTCAAGAACCAGCTGGAC
CAGGAAGTGGAGTTCCTGTCCACGTCCATTGCTCAGCTCAAAGTGGTACAGACCAAGTAT
GTGGAAGCCAAGGACTGTCTGAACGTGCTGAACAAGAGCAACGAGGGTATGGGGTAGGCG
GGTGAGGGTAACCTAAAGTGGCGAACCTGCTTCTCTCGTCCCACCTCCTAACCAGTTTT
TCTTACCTGAAACGAGAAAATCCATTACATATCGTATACCGCTTCATGAACCTTTGCAT
GTTGCCTGCCTAGAATTGAAAAGTACAGGACATTCCTCTGCTCCTATTGCCCTGTTTCC
GTTCTTTTCACTGTCTGTGGGTGCTGTGCCCTGTTGGAACCTCTCTTAACGTCTTACC
GTTGGAGCCGCTTACCTTCCAGGTGTTGTCTTCATTGGCTTTCACAAGGGAAAA

Sequence 2012

ACGCGTCCGCACACCCOCAGGTGCCCGCGCTGGCCCCCAGGCGTGGTGGCCTGCACGGA
GGGGACCACTTACGTCTGCTCCGTCTGCCAGCAAAGTTTGACCAAATCGAGCAGTTCAA
CGACCACATGAGGATGCATGTGTCTGACGGATAAGTAGTATCTTTCTCTCTTTCTTATGA
ACAAAAACAAAACAAACAAAAACAAAACAAAACAAAAGCTATGGCACTAGAATTTAAG
AAATGTTTTGGTTTCATTTTTACTTTCTGTTTTGTTTTGTTTCGTTTCATTTTGTACT
ACATGAAGAACTGTTTTTGCTGCTGGTACATTACATTTCCGGAGGCTTGGGTGAATAA
TAGTTTTCCAGTCTCCCTCGGATGGTGGCCTTAAGGCCTGGTAGTGCTTCAAGAGGTCC
ACTGGTTGGATCTCTAGCTACTGGCCTCTAAATACAACCCCTCTTTACAAAAAATCTT
TTAAAAA

TABLE 1
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Sequence 2017

CGCTCCGCAGCATCAAGAGTTATTTTCTGACTGTCAAGTTTCAACATTCAAGGTCTGTCC
CCAACAGGCACCACACCGGGGTGGAAGTCCCTGTGTAAGTTCTCGCCACTGGCTCGGAGAG
TAGACAGAGTTGCCATCTATGAGGAATTTCTGCGGATGACCCGGAATGGTACCCAGCTGC
AGAACTTCACCTGGACAGGAGCAGTGTCTTGTGGATGGGTATTCTCCCAACAGAAATG
AGCCCTTAAGTGGGAATTCTGACCTTCCCTTCTGGGCTGTCATCCTCATCGGCTTGGCAG
GACTCCTGGGACTCATCACATGCCTGATCTGCGGTGTCTGGTGACCACCCCGCCCGGCG
GAAGAAGGAAGGAGAATACAACCGTCCAGCAACAGTGCCCAGGCTACTACCAAGTCACAC
CTAGACCTGGAGGATCTGCAATGACTGGAAGTTGCCCGTGCCTGGGGTGCCNTTTCCTCA
ACCAGGGTNCNAAANAACCTTTGGCTGGGGCAAGAAATNAAANCATATTTGGTCCGGAAAA
AAAAAAAAAAAAAAAAAGGGCCGGCCCTTNAAGTCTAAANAAAAAAAACTTTCAAAA
CCTTCCCCTGGAACCTGAAACATAAAATGNATNGCAATGGTGGNGGTNAACCTGGGTAA
ATTTGGCANCCTTTTTANTTAAAANTTGGGGGGGGGGTT

Sequence 2018

CGGATCAAGACCATCCTGGCTACAGTGAAACCCGTTTCTACTAGAAGTACAAAAATTA
GCCGGGCGTGGTGGCAGGCACCTATNGTCCCAGCTACTCGGGAAGCTGAGGCAGGAGAAT
GGCGTGAACCTGGGAGGTGGAGGTGCAGTGAGCCAAGATGGCACCAGTGCACTCCAGCCT
GGGCGACAGAGGTAGACTCTGTCTCAGAAAAAAAAAAAAAAAAAATCAGTCACTGGAT
TTGGGCCCCACCCTACCTNCATATGACCTCATGTTAACTTGATGACATCTGCAAAGACCCC
ATTCCCAAAAAGGTCACTTCACCAGTAAGTNGGGGGTTAGGACTTGAATATAGCTTTTT
GGTTGATGTAATTCAACCCACAGCACTGCCTTTTNCATTCCATGTTATGTTTTTTGAGAT
TTTTGAGATTTGCCAAATATATGAAGCTATAAATTATCAGNGAAAAATAAATAATTTCAA
ATNTAAGCTGTTGAAAACCTCTAAATTATTTTTAAGCCTTTAAAGAAATGGATTTTTGNA
GACAAGGNCCCGNNNGGGCTTCAATGCCTNTAATCCCCANCACTTTTGANANGGCTGATT
GGGNGNGNGGATTCCACCTTGAGGGTTAGNGGNTTCAAAGACCAAGCCTGGNCNCTAN
CGGNGGTTGAAAACCCCTGGTNNTTCTNACCCTTNAAAAAAA

Sequence 2019

GTTTTTTTATTTCTACTGTCAAATGATGTGCAAAACCTTTTACTGGTTGCATGGAAATCA
GCCAAGTTTTATAATCCTTAAATCTTAATGTTCTCAAAGCTTGGATTAAATACATATGG
ATGTTACTCTCTTGCACCAAATTATCTTGATACATTCAAATTTGTCTGGTTAAAAATAG
GTGGTAGATATTGAGGCCAAGAATTATGCAAAATACATGAAGCTTCATGCACTTAAAGAA
GTATTTTTAGAATAAGAATTTGCATACTTACCTAGTGAACTTTTCTAGAATTATTTTTCT
ACTCTAAGTCATGTATGTTTCTCTTTGATTATTTGCATGTTATGTTTAATAAGCTACTAG
CAAAATAAAACGAGTTGACCCACGCCGTCCGGACACAAGAAAGGAATATAATTCATACAC
TATTGCATTTTTAATAAATCTTTGAAATTTGCAGAATTAAGATTGTATTGTGTTTTCT
GGTTAAATGATAATTGAATGTAAATATTTAAGATGCAGCACCATATTTTATAACCCAGCT
TTAGGCATTTCTCATATTTTAAAGGAAACCCCCACCTCCTTCTTTAANGGCGCTTCT
TGCTCTCTGAAATGCCCTGCTAAATGCCTTCTCTTAATTATTTGGAATAANGGTAGGTTT
TTGGGGGAAAAATTTTAAAAAAAAAANGGGGGGNNAAAAAAA

Sequence 2020

AATTTTTNATAATCTGAATTATCACAAAAAGATAAGGATTTTTAAAGTTATTTGGAGGGA
GTGTACACATTGTTTATTTAATAGTGAGGGCTATTATACAAGCNGGTCNATGTAAAAATA
TCCCTTTATATGTATGAGCATAGTTAATTTGGTAAACAACAGACAATTACATACTGTGAT
CATAAGGACTTTAGTATCAGTTACCATATAGCAGGTACTCTTTAGTCAGGATATACCTAT
ATAGGTGCTAAATTAATAATCAACCTTATATCTCAAATTTACTTCTAGTAGAGTGTAAC
GCTGCCATAATTGCAAGCCTAATTATGGGGTGTCCATACTGCAGTCCCATCAGTACTCA
TACACCAAGGGTGGGCGCTGTGAAGACTGGAAAAAGAATAAAATATCTTTGATTGAGA
TACTACAAGCAAAAATGACTTTCTGGCTACCATTACTGCAAGAAACAAAACCTCAACTGAA
AACAATATGTAGCAATTAAGTCTCATTATCTTCAAAACACAC

Sequence 2021

CCCGCTCCCGGAAGTCTTACCCATAACCCTAATGATGCAAGTCATATGGGGGAACACTT

TABLE 1

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TGTAAATGGTCAGGATAAAAACCAAATCTGGGTGCCAGATCCCAGCACTACTTTTTATTA
CTGGAGAAATGGGGGGGATAGAAAATCTACTTTGAATTATTTAGTTTTTTTTAAAGAGT
GGGTTGTGTTTGTGCTTCTCCACCTTTCAAGCATTTATAGAACATGCTGCCCCACATAC
AAAGTCAAGACCACTTACTTTTATGTGACACTAGTAGTTTGGGGTTAATGGTTTGNGTAA
AGAACAAGCTGCATATGAGTAAAGGTTACCCCAACCCNCAGTGAGGANGAAAGATGTTCA
CATACTGGGAACCTGTCCTGNCAAATAAATNTGGCCCCTATTGGGCTCTGTTTAAATTNGG
AAGNGGGCAAAAGTAACCTCTTGCTTTGGGGCAACTATTTGNNNTCAAATTANAAACCT
TTTAGACCCAAANTTNANNNNNNNNAAAANNNGNNNNNNNANGGGCCGGNCCNTTNGAC
CTTAGTTTTTANANAAAAAAAACCTNCCACACCTTCCCCTTGGAACCCTGAAACAATAA
AAAGGAAANGCCANTTGGGGGGNGGGTAAACCTTGTTTNTATTGGCACNCTTTATAAAN
GGNTTNCCAAAANAAAAGGCAATTTGCCTTCCCCAAANTTTTCCAAANAAAAAAGGG
CCTTTTTTTTTT

Sequence 2022

ACCACGCGTCCGGTCTGCAGAGGCCCGGGCCTGGGCACAAAGGGAGAGAGGCCTCCATTG
TCCCGCAGGGGGCCAAAATGCAGACCGTGCATCCCCGGTGACCTCGGGGACCGTNCCTCTGA
TCAGCAGGATTTTCTTGACTCTGGGGTCTTGTCTGCTCAGGCATCCCTGCCCTGCTC
TCCTTGAGGGCCCTCAACACTATCTTCCCTGGACACAAGTCTGGGGACAGCCGGGTGTTG
AGGACCCCAAAGGGGTGACTACCTGCTCCTGGGCCCCACAGAGTCCTTGCTCAGTGTA
GTGGCTGAGCTGGGGGATGCCCTGGAATTCGGAGCACACAGCACTGGCTTACTGTGGTAC
CTGTGCAGTGAAATTGGAGACAGAATCACCAGGATGGAACACAGGTCTTGCAAGATCACG
GAAAACCTTTAGAGTTGTCTTGACACCACCTTGATGTTGAGTGTCGGGTGTTGTAGGA
TGGCCTGCACTCAGTCCAGGGGCAGG

Sequence 2023

CGCGTCCGCTTGACCCTGTATTTTGGGAGTCGAACGGAGAATGGAAACTGAAAGTGAAAA
TCAGGAAAAGGTAATGGAAGAAGAAAGCACTGAAAAGAAAAAGAAGTTGAAAAAAGAA
ACGGTCACGAGTTAAACAGGTGCTTGACAGATATTGCTAAGCAAGTGGACTTCTGGTTTGG
GGATGCAAATCTTCACAAGGATAGATTTCTTCGAGAACAGATAGAAAAATCTAGAGATGG
ATATGTTGATATATCACTACTTGTGTCTTTTAAACAAATGAAAAATTGACTACTGATGG
GAAGTTAATTGCCAGAGCATTGAGAAGTTCAGCTGTTGTAGAGCTTGATTTGGAAGGCAC
CAGAATCCGGAGGAAAAAAC

Sequence 2024

CGCGTCCGCAGACTTTCCCTCTGCAATAAATCCTGTAAACAAAATTGCACTCGCACCCCTT
ACGTTTATACAAATTTTTAAATAAATAAATACTAGAAAANGCAAGAGGAAACCAACCCA
AAATTATTAGAAGAAAAGAAATGATAAAGATTGGGGCAGAAATTAATGAATTGATACTAA
AAATAGTACAAAAGATGGATGAAAGAAAAAGTTGTTTTTTTTTTTTTAAAGATAAGCAA
AATCAACAAACCTTTAGCCGGACTGTAAAAGAGAGAATATCCATATGAATAAAATCAGAG
ATGAAAAAGGAGTCATTACATCTGATAACACAGAAATTCAAATATTTTAGAGACTATTA
TGAGCAACTATATGCAGTAAATTGGAACCTTAGAAGAAATGGATGAATTCCGAGACACA
TAAAAACATACCAAGATTGAACCATGAAGAAATCCAAAACCTTGAA

Sequence 2025

AATTATCCTGGTGTGGTGGCGTGTGCCTGTAATCCCAGCTACGCTGGAGGCTGAGGCATG
AGACTCGCTTGAATCCAGGAGGCAGAGGTTGCNTTAAGCTGAGACCACCACTGCACTG
CAGCCTGGGTGACAGAGCAAGACTCCGTCTCAAAAAAAAAAATAAGCTATTGATGGGCTAT
ATATTGTTAAGCTATAGGGTGTGGTTACAGTGTCCAGTGTAGCATTGNTCGATTAAATTA
TAGCCTCTTGTTGGCAACAGCAAGCAGNTTCCAGAGATGAATACACAGCTTGAGTAGGCAG
GGGGGAGTAGGACATGACGGCTGCCTCATCTTAACACCTTGGGCCTGATAATTTAAAGG
ACTCACAGTCCTCAGATAAACATGACTTTCTTTTCTCATGAGGAAACANANAAGGTGGCT
AAAGGGTATNTCTTCTCTCATGATCCCAAACCTATCAGGTTT

Sequence 2026

ACCNCGCGTCCGGGTGCTGTACCAGACCAGAGGCCAGCTCCATGTCCTCCGCGTCGGCAA
TGATACCCACTGCCAACCAACAAAAATTGGCTGCAACCATCCCCTACCAGGACCCGGCCC

CGACCNCGGTCCGGCGTTCTACCTTCCGGCCCGTGTTCATCCGCCGCTCCACCTTC
CATNCGGCGCGGCTTTCGGCGCGACGGTCGCCGCGTTCATCGTCGCGCGGCCCTTCGG

TABLE 1
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GCGCCCGAGCCCGCAATGTCGGGCCCCAACGGAGACCTGGGGATGCCGGTGGAGGCGGGA
GCGGAAGGCGAGGAGGACGGCTTCGGGGAAGCAGAATACGCTGCCATCACTCCATGCTG
GACCAGATCAACTCCTGTCTGGACCACCTGGAGGAGAAGAATGACCACCTCCACGCCCGC
CTNCAGGAGCTGCTGGAGTCCAACCGGCAGACACGCCTGGAGTTCCAGCAGCAGCTCGGG
GAGGCCCCCAGTGATGCCAGCCCCTAGGCTCCAAGAGCCCCCAACCGGGACCCAACCTG
CCTCCCTGGGCTAGGCTCTGGCCTGGGCACTCACCCCCTGGCTTAGACACCTTCTCAAGG
GCTGGCCTTCAGGGACCCCTGGTGGGTCTGCTGCCTGGGCCACCCTTCTGCCTGGGCCTN
CCCTTG

Sequence 2033

CGACCACGCGTCCGCTACCTCAAGGNCCTGGGCACCGAGCGGGCCTACAAATCCGCACTG
GACTACACCAACGAAGTCTGGGGATTTTCATTGACCTCCANAAGAAAGAGAAGGAGGCG
CATGCCTGGCTGCAAGCAGGGAAGATCTATTACATNTTGCGGCAGAGCGAGCTGGTGGAC
CTCTACATTGAGGTGGCACAGAACGTGGCCCTGTACACAGGCNACCCCAACCTGGGTGCT
GGAGCTGTTTGAGGCGGCNTGNAGACATCTTCTTCGACGGGGCCTGNGAGCGGGAGAAAG
CTGTGTCCTTCTACCGGGACCG

Sequence 2034

GGGGGGGAGGGGNGNAAAAAAAAAGNGANGGACAAANAAANAGAAAAANAAGANANAAGA
AAGNNANAAACANNNNAAAAANACNNNGGNAANCGGAGAAAAGAAAAGAAANNNGNANANA
GAANANNANGAGGGGNCAGGNAGAAGAAANNNGANAGAAGGGGNNAAAGGGGGNCGGG
AGAAAAGAAAGNAAAAAAAAANAAANNNGAAAAAANGGGAAAAATNNGGGGAAANNNGGA
AANNAAGAAAAAAANANCNGNGGNAAAAAAAAAAGGANNNAANNNNGGNA
ANANGGNNAAANGNANANANAAAAAGNGGGGGGGAGGGGGGAGGGNAAGGGNNGAAAAAN
NGAAAGAAAAAGAAAGAAANAAANGAANAANAGANGGAGANGNAAGGNAAAAANAANAA
AAAGNNNNNAANAANANGAAAGGGNAAGNAAAANGGGNNNNAAAAAGAAAAAAAGNG
GNAAAAAAAAAANNNNGGAAAAAAANNNNGGNANNNNANNCAAAAAGAAAAAA
AAAAGGGNNNNAAAGGGGAAAAAANAANAANAAAAANGGGGAGGNGGCGNGGNA
AAAAANGNNAAAAAAANNNNAANAAAAANANANANNNGNAANNNNANAAAA
AAAAAAAGAAANAAGNGGGNNGNAAAAANACNNAANANNGANANGNANAAAAANNGG
AANAAAAANAAANAAAGNNANAANGAAAAAA

Sequence 2035

CCCCCGCGTCCGCGTTTTATGTGTGTATGTACAAAACAAATACCTTTTTGAAATTAC
ATAAGTGATACATGCTTATTGTGAAAGAGTTGGATAATACATATACTGTAAAGAGATG
AAACCACTCATAAATCCAACCTGTAAATACTTTCTGTTCATATTTGGCATCTAATG
TATCCTTTATGTATATTTAAATATATTTTATTCAAGTATAGGATCATGTACCTCCCTG
TTTTATAATTTCTTTTTAATTTTTCAGTGTATTGTGGACATCTTTCTCATCAACAA
TACATCCCACAATGTTTATTTTGTGCCTCATTATACCATGGAATAGTGACATCCTAGTA
TGTTTAAGACATTCTTATTAATGAACAATTAGGCTACTTCCAATTTTAATTATAAAGG
ACATTTTGAAGGACTTCCTTGTACATATTATTCTATTGCTTTATCATCTTTTGGGATAA
TTTCATGTAGTATATTTCCAGTTATTTAAATGAGAAAGTACATGGTTTATAACAAATGGT
ATTTAACGTCCAAGTCACTGCTATCTAAAGGGGTAATTTTAAAGGTATAAAATAATTTGG
CTTATAAAAAATCGTGGGAAAAATATNCTAGAAATATTTAANGATTAACTTCTAAATTGT
AAATTGGCATATTTAATGATAGAATTCAAAAAAAAAAAAAAAAAAAAAA

Sequence 2036

CGCGTCCGGAAGAAATTGTGCACCCTCCCAAACATACAAAGTTTAAAAGTTTGGATCTT
TTTCTCAGCAGGTATCAGTTGTAAATAATGAATTAGGGGCCAAATGCAAAACGAAAAAT
GAAGCAGCTACATGTAGTTAGTAATTTCTAGTTTGAAGTGAATTGAATATTGTGGCTTC
ATATGTATTATTTATATTGTACTTTTTTATTATTGATGGTTTGGACTTTAATAAGAGA
AATTCATAGTTTAAATATCCAGAAGTGAGACAATTTGAACAGTGTATTCTAGAAAAAC
AATACACTAAGTGAACAGAAGTGAATGCTTATATATATTATGATAGCCTTAAACCTTTT
CCTCTAATGCCTTAACTGTCAAATAATTATAACCTTTTAAAGCATAGGACTATAGTCAGC
ATGCTAGACTGAGAGGTAAACACTGATGCAATTAGAACAGGTAAGTGTGCTGTCAGTGT

TABLE 1

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TAACACTATGTTTAGCTGTGTTTATGCTATAAAAGTGCAATATTAGACACTAGCTAGTAC
TGCTGCCTCATGTAAC TCAAAGAAAAACAGGATTTTCATTAAGTGCATTGAATGTGGCTAT
TTCTCTAAAGTTACTCATATTGNCCTTTGCTTGAATGCAATGCCCCGTGCAGATTATGTGG
CTGCTATTTTTATTTTCTGGGCATTACTTTNACACCNTAAANGGAGAAGCNAACATTTNC
TTCTTCACTGACTGGCAATGGNCCTTTACTGCAATAGGAAGAAAA

Sequence 2037

CCCCGCGTCCGGCTGGGCTTAAGGGATCTTTCCCAGGTAGCTGGGACTGCAGGCATATGC
CACTGTGCCAGCTGCTCCCTTAGTCTTGA CTATGTATTTTTTTTTTTTGGTTGTTTTA
TTAGGATAGAGTCCTAAGAATGGCATTACTGGGTTAATAGGTATGAACATTAGATCTTTA
ATACATACAGTCGAATTACTTTTCATAAAGCCATATACCTTTTTATATTCCCACCGATAC
TATCCCTATCACTAAGTATTAAC TTATTTTCATCTTTGCCAATATGATCATCCAAAGTGA
GGCAGAGGTTGCAGTGAGCCAAGGTACACCACTGTGCTCTAGCCTGGGTGCCAGAGTGA
GACTGTGTGTCAAAAGAAAAAAGGGGGGGTGCCGGGTGCGGTGGCTCACGCCTGTT
ATTCCAGCGCTTTGGGAGGCCGAGGTGGGCGGATCACCTGAGTTTGGGAGTTTGAGACCA
GCCTGACCAACATGGAGAAACCCTGTCTCTACTAAAAATACAAAAT

Sequence 2038

GTCGACCCCGCGTCCCGGACGCGTGGGTGCGCCATGAACAAGTTTTCAAGTATCAGTTGA
TTTATGATATAGGCTTATCCATTTGGTTATAAAATCATATGTTTATTACATAATCATTGA
CAAATAGTTTCTGTATAATAACTGGCAGAGTAGCTCTAAAACATATGCAAGGAAATAAAT
AAAGAAAAA ACTTACAATAAAGAGAGTAACTCATATTTTAAACAGTTTTGTGAAAAAATA
GAAAATATTTTATGTAGCTTATAGTACATATATTTTTTACAACAGAAGAATCGCATTCT
GATTTTCCATATGGATCATTTCCCTATGTTGCTAGACCAGTACACTGGCAACCTGGTCAT
ACAGCTTTTCTTGTC AAGTTGAGGAAGGTCAAACCACAACTTAACTGAGTACTCCAGATG
ACAGTAACTGACTTGAAGATGGAAAAATATCAAATAGAACTTTATATTGAAAATCACTG
CTTCCATAGATTGGCATTTTTAGCTATTACTATGACTTATATACTTATACATATAATTT
TGAAAAATAACAATAAAGATGTATAACATAGCCAAAAC TGTAAACCATCCATTTTGA
CCACTTGTCTTG CAGNTAGTTTTGACATTTTGTAGGTTAATGGATTCCAAATTGGTTAA
GTGGGCCATCTCATTCTTCACTTTCTGGNAANCCACTCCATAGATTTGGCTTTTCTTCAG
GAAAATTAAGNTTCCCTTNCCTTTATTTGGATTGGANGGNCATTGGCCTACTGGAAAAANA
AATATGCCTTTTTAGGGTTAAAAA AAAAAA

Sequence 2039

GTCGACCNCGCATCCGACCACGCGTCCGCCAGACCTCACGTCAACCGGCTGCACCCCACT
TTCCAGCCTGCGCCCCAGATCTGCAGCCTTCGCCCTAGATACACCCGCTGGTGATGAG
GCGCTCCTCGCGTTCTTCCGGGCTCCAGGTGTCCGTGAGCCTCCCTTCGCCCCTGGCCT
CCGGTCTCTGCCTTGCTCGTGCTTCTACCACCACCCTTCCCCTCCCAACCCGGTGGATCC
TCTCGTCTCCCCAGTCTCCAGTGCACCGGCTTTCCCTCGTCTCTGCGCAGTCCATCTC
AGCTCATCTCTCCAATTCAATGCCATCATCTCTCCTCACCATCTCTCGGTGCCCTGGAAT
GTTTGCTGTCAAGATGTCCCCTGTGAAACCCACAAACGCTTGCGATTTGGCCTCCTTGT
TTATTTTGTGTAGTCCTACAACGTCTTGTACTACCCCTATTACAACACTTATAACTCA
NAANGAAANAGNNNNNNNNNN

Sequence 2040

CGTCCGCGGAGATCCGGCACACTGCGGACCGCTGGCGCGTGTCCCTGGATGTCAACCACT
TCGCCCCGGACGAGCTGACGGTCAAGACCAAGGATGGCGTGGTGGAGATCACCNGCAAGC
ACGAGGAGCGG CAGGACGAGCATGGCTACATCTCCGGTGCTTCACGCGGAAATACACGC
TGCCCCCGGTGTGGACCCCAACCAAGTTTCTCCTCCCTGTCCCCTGAGGGCACACTGA
CCGTGGAGGCCCCCATGCCAAGCTAGCCACGCAGTCCAACGAGATCACCATCCCAGTCA
CCTTCGAGTGC GGGGCCAGCTTGGGGGCCAGAAGCTGCAAAATCCGATGAGACTGCCG
CCAAGTAAAGCCCCTAGCTTGAGTCGACCCACGCGTCCGATTTAAATATTTGTCCCATTG
TTTGTGATTAGGATGTAAGCTTTGTGGAATGTAATTAACCCTGCTTTACGAAGTCACCAT
ATTATAATAGGAAAAACACTGCCTAGGAGGCAAAGAGATCTGAATTCAGTTCTGATGCT
GCCACTGTGTAAGGAAGTAGTTTTATAAACCATGGGCAAATCATCTTGAGCTTTCTCATC

TABLE 1

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TGTAAGTTAGGGG

Sequence 2041

TCGACCNCGGTCCGAAAAACCAAAACCTGANTGAGATCTTGAAACCGNTGTGCGCCGGC
CGNNCTCTCCCANGGGACCANCCANCCCCGCGCGGTGGCCGACTGNATAGGCGGGACTG
CGCTTCGAGGCTTAAGGACGNCAGATCGGAGGCATCGTGTGTTGTCTGTGCGGAGAAGCC
AAAANNGTGATTACGTTTATTTGCAAGACCGTTCATGTTGTTTTAGTTCATGGTATGAT
TAAAACCCGATCCTTTGTTACCATGCCCTTAGGTACGAAAAAATAATTGTTTNGATATTT
GGCAGTCACCCAAAAATATCCAAAAAGCCATGAAACAGTANAGGTAACAAGTANGAAGT
GAAANTAATNTTCGTCCTTTGTTTTCTTTCTGGAGGTGCTCAAAACACCCTCTCAAACCA
TTTTCTCAGCATAGAACCAAGTGTGGNCNGGNTANCAGCTAATATTTACNAGGNGAGAA
ACGAACCCTNGCGATATTTAGTCACTTTGTTNCCNGGGANCACANAAAATNTTGAACAAA
CACATGAGAAGTGTACCGATCTCTGTATTGATNACCANGGATACCCGTGAATTTTATGT
AATATTAATCTNNGGNAGGCANGANTNTTNTAGGTATTTGCCTTTTCCAAGGTGCNCT
TCCNTACCAAGGAAAANGGTTATTTTAAAACTTTTACCANAANAAGGGGATGNCTT
ATTTTTGGTCCT

Sequence 2042

NGGACTTGGTTTGAACGCGTTTTCCCAAAGTTTATGTGTTGGAACTTGACCCCCAATG
CAGCAGTGTGGAAGGTGCCTACTAGGTGGTGTCTGGGTCATGGGGGTATGACCCTCATG
GATGGATAAATGCCATGACTGAGGCGGTGGGCTCCTATAAAAGAATGAGTTTGGGTGAA
ACCTCGTCTCTACTAAAAATACAAAAATTAGCTGGGTGTGGTGGCACATACCTGTAATCC
CAGCTACTCGGGAGGCTGAGGCAGAATGGCTGAACCAGGGAGTCGGAGGTTGCGGTGAG
CAGAGATCGCACCCTGCACTCCAGCCTGATGACGGAGCAAGACTCCGTCTCAAAAAAA
AAAAAAAAAAAAAA

Sequence 2043

GAGAAGCCTGGGGGTCTGGCTGAACTGGGCTGGGTGAAGGGGGCCCCCTGACCCCCTTG
GGGTCCGGGCTGGGCTGGGTGAGGGGCGGTTCCGACCCCAGCCAGGTTCCAGGCAGG
ATGAGCTGGGGTTGGGGTGGCTAGGCCGTGGGCTTGGGAGCTGGGCAGTCTGGGCTGGG
CTGGGCTGGGCAGGGCGCCACATGGAAGCTGGAGGAGCAACGGGAGCGCTGGGCGTGGGG
TGCAATTGCCAGTGCTTCTGTTTCCAGGCAGCTCTGTGGCCATGGATATGTTCCAG
AAGGTAGAGAAGATCGGAGAGGGCACCTATGGGGTGGTGTACAAGGCCAAGAACAGGGAG
ACAGGGCAGCTGGTGGCCCTGAAGAAGATCAGACTGGATTTGGAGATGGAGGGGGGTCCC
AAGCACTGCCATCAGGGAGATCTCGCTGCTCAAGGAACTGAAGCACCCCAACA

Sequence 2044

AACTCATCAATTAGGTTTTATTTTATTTCTTCTCTACCCCCAGAAACAAGCCTGTT
AATTTTTTTCTTCTCCTCTGGCGACTGTGTGATGAATCCTTTCTTGGCTGATCAGGTT
GCGGATAGACTTGTAAGGGTGTGCTGCATACAGTGAAGCATTGTGACCGCCAATAAA
CTTCAATGGTTTCTACTGAAAAAAAAAAAAAAAAAAGGACGCGTCTACTTCCCACTG
GGTCCCTCCCAACACATGGAAATTCAAGATGAGATCTGAGTGGGGACACAGCCAAACC
AATCAAAAGGATATACAAAATAACCAGAAAACAATGAACAAAATGACAGGAATAAGTTC
TCACCTATCAATAATAACTTTGAATATGTGTTAAATTACCTACCTAAAAGATAGAGACAG
GCTTAATGGATAAAAAATGACTCAACAACCGTCTACAAGAACTCACTTCACTTGTAAG
ACACACACAGACTGAAAGTGAAGGGATTGAA

Sequence 2045

GCCNCGCGTCCGTGAGAATACACAAGGGGGGCACGCTTCCAGTAGATGTGTTGGGAAGGA
GGAGGGCAGAGGGACAGGGGACAGGATTGAGCTTTGTGGTGGGTCCTGAGGGTCTCTAC
CAGGGGTAGCCAGGATCTGGGAAACAGATCAGCGACTCTAGTCTGAAGTGGCTGCCTGGT
TCGGGGGCTGCCTCAGCAAGATTGAGGCAGGAGAGACGGAAATAGCCACCTTCCAGGCG
TGAGTCCTGGAGATAAAAAATGGATTTTAACTAGGACTGCCGGGAGCTGGCCCTCCGCGG
CTGCTCAGACTAGGGCTGTGTGTGCTGGCTCTCGCCTGTTTCCGGTGTCTAACTGGCTTG
TTTCTCTTATGGCTTGGCTTCATTCCGACCTGGGGTGGGGCCACATNCAACCCACTGCC
CACTGGCTGTCCGTCTGGCCTGCCCCCGCGGTTTCAACCACANTGGTGAACAANCCTTG

TABLE 1

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CAAGATNTACAACTCGCAACACCGGGTCAAGCAATCAGCTGCATTCCGGACCGGTGTGNA
AGACCGAAGGGG

Sequence 2046

CCCCCGAATATCTTATCCTTAACATTAAATTGAATTTTTTGCAAATGATCAAAAGGTCA
TTCCGAGTAAATTCTGTTGTATAGTGAGATGATCAAGCTGAGTATTTGCCATGTTTTTA
TTTTAGAAAAGAGATGTTGCTATAACATAAGTAAATACGATTCTCGTATGTGGCAGATAA
ATTTACTTGTAATCTGCTCTAGAGTGAAATTATTTTTACATATAAGCATTGTCATCATT
CTAAGGATTATTGAATAATGAATATAAAATGTTCTTGTGTATTTGTGTATGTGTATATAA
TTTTTTGAAAGTTTCTTTATCCTATTGACCCTTCTCATAAACAGNAGCATATATATTA
TATGTAGTAGAATTTATATAGGAACATTGTCTTTTTCCCAGTAATGCTGATTCTAAACTA
GTTATGTCAATTTTCATGTAACATGACATTNAGAATAGTGGGGTGCTAAATATATTTAGAA
ATGATTTCCAAAATTGNTGTATTTCTAACATAGAANGATATTTGTCATTTTAAATAATG
TAAAGAAAAAATGC

Sequence 2047

GCACCCCTCCCTGTTGACACAGCCTGGATCCAGAGTTCAGCAGACCTTGAGACAATGAAA
ACAAACTTAGTAATAATCATTTTTCAATCATTGCAGTAATTATTGATTTGGACAAAAATC
AATTGACGTCAAAACCTTAAAGTGACGTTTCTCTGCCTATGGAGTGGGTCATTCTTTTAT
TCCTTTAGTTTCATAATAAATTTTCTTTTACTTAAAAAACTTATAGTTTGATGAAGAGT
GAGATATATACCTCATCTCAAAGAATCTTCACACACACACTTATTAATTACAAAAGGAAA
ATCAGTAATTTTGCAGTGGAGACATATGGCCAACTCCACCTTACCCAAGTGGCTGAAAGT
CACTGCACCAGTAATGG

Sequence 2048

AGAAAAGCCNAGCCAACAGCTCTTAAATCAGAAAAACAANGGGAGTCCTTCCTTGTCT
CNTCTGTGNTCNCNGGCCCTTGTCTCTGAGACTNTCTGTGCCCNNAANCNNTNTNNTNGCT
NTNANCTGATTCTANTTTTGNNTCCCATGGAATCTGTCCTAAGACTGGGGNTTTTTGNCA
NATGACAGNCTTGCCNGNACNCAATATCATAACAGCATTNNNNANCGANTTTTGCNGAT
CAAGTAANATANTTGCNTGACAATGACAGCTTTTTAACTCTTTCAAAGTCACCTAAAAGC
TATTATTGCAGGAGGATTTANGAAGTCACATTCATTNAACACCCAAGTGCTATGGGTGAA
NNATTCATGATAGCTTGGCCCAAGGTCATGAATTGAGGAGGGAATCTTGCTTTTCAA
AAANCAATGGAATGNTCCCNCCACTGAAAAAGGGNNATACGTTTTAATATTTTGGACCT
TCANAAAGGNTAANGAAAAAAACCCANGGTTCTTCNAAAAAGTTAGNGAATAAGGGGGA
ACTTAANTTTTCATGGAANACAAGCCCATTNTTTNAAAAAAAAAAAAA

Sequence 2049

CNTACGAACGTCTGAAACGTGGAGGAACCTTCAGTTCTGGGAACTCCCTGCCCTTTCCC
GGAAAATTCATGAGTAATCCACCTGTTTAGCATATAATCAAGAAGTAACCATAGGCATAG
TATATCAAGCAGGCCCACTGCTGCTTTGCCTATGGGGTAGCCACTTTTATTCTTTACT
TTTTATTAACTTGCTTCACTTAAAAAAAAAAAAAAAAAAAAA

Sequence 2050

CGCNTCCGAAATCCAATCCTAATGAAAGAGATTGATAAGTGTGACTACAAAAGGTTTAAA
ACTTTTTTCATAGCAAATTATCTCAGAACTAAATTAAGACAAGGGAGACCAGGTGCA
GTGGCTCACGCTGTAATCCAGCACTTTGGGAGGCCGAGGGAGGTGCATTGTTCTAGCCC
AGGAGTTCGAGACCAGCCTGGGCAACATGGTGAAGCCCTGTCTCTACCCAAAATACAAAA
ATTAGCCAGGCGTGGTGGCTTATGCCTGCAGTCCCAGCTACTTGGGAGGCTGAGGTAAGA
GGATGGCTTGAGCCCAGGAAATCAAGGGTGCAGTGAGCTGCNATTATGATTGTGCCACTG
CACTCTAGCCTGCATGTCCAAGTGAATCCTACATNAAAATAAAAAGTNCAAAAANANAAA
AAATGTGCCGGCCCGCTAGACTAGTNT

Sequence 2051

CCACGCCTCCGGAATGCCTCTCTCCAGAGTCGGACCCCTCACCTCCTTCCTGGAAGTGCC
TTTGGCCCCAGAACCATGAGACAATCCCCACCTGAGAAGCTNCGATCACTGGGAGGAGA
GAGAAAGCCTCCAGCTTTGGGATTCAAGGCTTCAGAAGTTTTAGCAGCCTTTGCTCATTG
GAGAGGTGGGGAGGATAAGTCTATAAGGAATCCTATTTCCCAGCTCTCCACAGAGAGG

TABLE 1
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ACAAAAGAAGTCTTCACACCGTTGTGGAACCTTCCTGCAACTTCTGGATGCAGACAAGCC
TCAGAGCAGACTGTTCTGGCTCCAGNGAATATCGGCTGCCAAGCTGTGAGCATCCAGGGA
TCCNCGTCTGCCTGGCTTTCCTGAAAGTCAGAAGGCGCCTTGGTCATACTGTGTGGGGTG
NGTNGGATNTTNTAGTTNTGNTCTCTTTTCTTTTCTTTTNTTAACAGCTTGGCGGAGTA
GCCAACACCCCTGACAGCAATTGTGCNGCACTTGGCTTAATTACACCCCTATGAATAATT
TTTNATATTTCAACTTGAAAAAGGTGGTTAAGAACTTTT

Sequence 2052

GATGGACTGTGTCATNCAGGACGGCCCTGCTGCATTGGCACCAAGGGCAGGTGTGAGATC
ACCTCCCGGGAGTACTGTGACTTCATGAGGGGCTACTTCCATGAGGAGGCCACGCTCTGC
TCTCAGGTAGGTCTGCAGAGTGTCCGTCGTTCCCTCCCCCAGCTACTGTGATGCTGATA
TGCTGCTCTGCGCAGGTGCACTGCATGGATGATGTGTGTGGGCTCCTGCCTTTTCTCAAC
CCCGAGGTGCCTGACCAGTTCTACCGCCTGTGGCTATCCCTCTTCTGCACGCCGGGATC
TTGCACTGCCTGGTGTCCATCTGCTTCCAGATGACTGTCTGCGGGACCTGGAGAAGCTG
GCAGGCTGGCACCGCATAGCCATCATCTACCTGCTGAGTGGTGTACCGGCAACCTGGCC
AGTGCCATCTTCTGCCATACCGAG

Sequence 2053

NCGCNTCCGGGCAGAGCCCCCGGAGCCTGGCCAGCCCTTCCGGCAGCTCCAAAGCCACAG
GCAAGCCCCGAGGCTGGGATGGCCGGCCAGGAGGGAGGAGGACGACGTACCTCCCGAGG
AGAAGAGGCTGCGGCTGGGGCTGGAAGGGGGAAGCGCACAGCCCGAGGACTGCNAAGGAC
GGGGAGGACGCGCCGCGGCCAGGCAGGGAGGAGACCGGCACCCAGACAGGTGGCGACGGC
AGAGGAACACAGTGGCTCACGCCTGTAATCCAGCACTTTGGCAGGTGAGGGCTGGCGGA
TCGCCTGGGGTCAAGAGTTCGAGACCAGGCTGGCCAACATGGCGAACTGTCTCTGCTAA
AAATACGGAAGTTGGCTGGGAGTGATGGCACGCACCTGTAATCCAGCTGCTTGGGAAGC
TGAGGCAGGAGAATCGTTTGAAGCGGGGAAAGCGAGGTTTGCAGTCAGCTTGAGATCACA
CCACTGCACTTCANCCACCTGGGGTGACATGAGCGACACTTCTGTTTTCAAAAATAAACC
GAA

Sequence 2054

CTGTGTAGGACAGACTCTCTTTGACTCCCTAGGATTTACCCAGTGCCTAGCATGTTTCA
CAGCTTAGAGGAAAAACAATTTGTTGACTGACTTTTGATCTCCATTTTTTGGTGAGATG
CAGTGGCTTACACCTGTAATCCAGCACTTTGGGAGGCTGAAGCGGGCGGATTACTTGAG
GCTAGGAATTCAAGATCAGCCTGGACAACATGGCAAAAAATACCAAAAAATAAAAAAAT
AAATAAATAAAAAATTTAGCCAGACATGGTGGCAGGCACCTGTGGTCCCAGCTACTTGGG
AAGCCAAATCGCTTAAACCTATGAGGTGGGAGGTTGCAGTGAGCCAAGATTGCACCACTG
CACTCCAGCCTTGGTGACAGAGTGAGACCCTGCCTCAAAAAAAAAAAAAAAAAAAAAA

Sequence 2055

TCGACCCCGCGTCCGGGAATTTGGGGTGGAATGTGATGAGATTAAATGTAGCTTTGGTA
TAACTTCATGTGTATTTCAAAATATACTGAACGTCAACATGATTTGAATAAAGAAAATGT
ATTTTCTACTTGAACCACATAACACTGTTATTTAAACAGTTTTCTGCAGTCTAAAAAAA
AAAAAAAAAANNAACAANNAATN

Sequence 2056

CGTCCGGCAGAATGGCTCCCGCAAAGAAGGGTGGCGAGAAGAAAANGGGCCGTTCTGCCA
TCAACGAAGTGGTAACCCGAGANTNACCATCAACATTACAAGCGCATCCATGGAGTGG
GCTTCAAGAAGCCGTGCACCTCGGGCACTCAAAGAGATTCGGAAATTTGCCATGAAGGAG
ATGGGAATCCAGATGTGCGCATTGACACCNAGGCTCAACAAAGCTGTCTGGGCCAAAGG
AATAAAGGAATGTGCCATTCCCGAATTCGTGTGCGGGTTGTCCAGANAACCGTAAATGA
GGGATGGAAGATTACCAAAATTAAGCTATATNCCTTTGGNTNCCCTATGTACCTGGNTA
CCACTTTNAAAAANTTTACCAGACCAGGTCCAATGGNNGGATGGAGAACCTAAATCGNT
TGNTCGGCCGGANTCAAAATTAAGGTTNTTAAATTTGCCAAAAAAAAAAAAAAAAAAAA

Sequence 2057

CGCNTCCGGAGAGAGCCAGGGATGCCTTATGGTCAGAACAAATTTATAGACAACAAAAG
GGAAGTGACCGTGCAGAAATCAGAAGTGAGGTACAGAAACAGCTGGACTGATTACAGCTC

TABLE 1
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AACATTTGCCTTTTTTGAACAAATCTGAACACTCAGCAGTGTATGAGTGGTTGACCGTAT
NGGCTGCTGTGATTGGCCAGACCTCAGCTATTGTTACAGGCACATACTCTTAAGTCAGGT
TTTCAATCCTATCTGACTATAAAGTTAGGTTACAGTTTGTCTCATGGACTCAAATTTAG
AAGTATGGCGTCCTTCTCAGGCCATATTTAGTTCAGTTTAACAAGTGCATATGGCTTCTG
ACAAAGGTGTGGCCCTTTAGGACTCCAAAGACGCTGTCACCTACATGGTATTCAGGGAA
GACACAGAGGATCTGTGAGCAGCCTGCAGCCAAAGCTTTTGAGATCATATTGAGATTTTT
TTGTANTATANGAGGAGGGTTCTGGCTC

Sequence 2058

CGGAAGCATCGACCTGCGAGCTCACAGAGCTGGGAGCAGAGCACCCACGCACACCCCGAA
TGGCTATGGAAGCTGCAGGGCGCCAGGGACACTGGGAGTCCCTGCTCTCATGGCAAAGCA
GGGACGGGGGACTTAAAGCCACCAACAGGAAAATCGGGGAAAAAAGGGAAGATGGTGGT
AACAGTTGGACACTATTTCTTGGCAAAACCGTGGAAAAACAGTTCTACACCAGCAGGTG
GCAAATTGTGGCCGCCATCTGTGTTTGCAAATAAAGTTTA

Sequence 2059

CCCCACAATGAGCTGTCCCGCTCAGTGGCCTGCGAACCCCTCAACCTCCACAACAACCT
CATCTCCTCCGAAGGCCTGCTGACGAGGCCTTCGAGTCCCTCACCCAGCTGCAGCACCT
CTGCGNGGCTCACAACAAGCTCTCAGTGGCCCTCAGTTACTGCCCCCGTCCCTCCGNGT
CGCGGATCTGGCTGNCAACCAAGT

Sequence 2060

ACCCACGCGTCCGCCGATTTTCCAGGTGCCGTCTGTCACCCCTTTCTTTGACTNGGAAAG
GGAATCCCTGACCCCTTGCACTTNCCGAGTGAGGCAATGCCTCGCCCTGCTTCAGCTCG
CACATGGTGCAGCGCACCCACTGACCTGCGCCCACTGTCTGGCACTCCGTAGTGAGATGAA
CCCGNTACCTCAGATGGAATGCAGAAATCACCCATCTTCTGCGTCACTCAAGCTGGGAG
CTGTAGACCGGAGCTGTTCTATTGCGCCATCTTGGCTCCTCCGCTCTATTTGCAGTTCT
TAAAGGGCTATTGTAATCTCTGGGATTGTACGAACCTGGACTGNATTGGAATGCAACAG
AAAATCTTCCAGGCAAGTGCCA

Sequence 2061

CCCTTCGAGCGGCCCGCCCGGGCAGGTACTTTCATTGAGTGTACGAGGGAAAAAAGCAT
GTATTGGGCCACCGGAAGACAAGCTAATAAATAGGCTGGAAGTAATATTCTACCAGCAGG
AATCAACAGCTCCAGTTAAATGCTTTGATATAGNGGCTCCTTTGCAGAGCCAAAACAAG
ATTTATTAATTTTCTTCAAACCTGTTTATCTTTAAACAAATATAAGGTTTTAATTATAC
TGCTGAAGCAAATGTGAATGCCAAAGACTATGTTTTGCAGTTTTGCTTTCTCCCAATAA
ATATTAATGTATGTAATTCTAGAGGGTAAAAATGTAAATAGGTTTGGACAATATTTGCAC
CCTTGTTTGTGTTATGAAAAAATTTTTCCAAGGCGAGCTAGAGAGAAAGATGTTTGGCA
TGCCAAATTAACCTGTCATGTTTGTAAAAAACAACACATGTTTTTGAAGAAGAACAG
ATCTGAACGTGTATTTGTTGAAGTTTTGCAAAA

Sequence 2062

CCCTTCGAGCGNCCGCCCCGGGCAGGNACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TT
TTTTAAAAAANNAANNAANNTNNNTTTTTTNGGCCNTNNNTTNAANNNAANCNNNT
TTNTTNGGGNTTNNNNAAAAAANNNAANNNAANCCCNCCNGNNNTTTTAGGGNAAA
AAAAANTTTTNCNGGGNTNAAAAAATTTNTTTTTGGNTNCCAAAANNTNNGNNAAAAA
ANNAANNANCCNNNTTTTTNNNNNGGGGNCNCCCTTTTTTTNCCNTGGNGGGGNG
GGGNAAAAAGGGGNTTTTTTNGGANCCGAAAAAAACGGGAANTTATCCCTTTTTTGN
GGGGCCNTAACTTTTTTTTTNNCCNCCNTTNTTTTTTAAAAANCCCCCNCCCTTTNTCC
CTGNTGGNNCCCTTTTTGGCCCGGGGAAACCNNTTTTTTTTTTTTTTTTTTTTT

Sequence 2063

AAGGGAAAAATGTCACGTANACTAGATCAGGGAACAAAATCCTCTCCTTGTTGGAATATCC
NATGCAGNNNGNTGATACAACTTANTATCTTATTGCCTAANAAAAAATTTCTTATCATT
GTTTCANAAAAGCAAAATCATGGAAAAATTTTGTGTCCAGGCAAATAAAAGGTCAATTNT
AATTTAGCTGCAATTTAGTGTCTCACTAGGTGGCATTAAATGTCCCCTGATGTCAT

TABLE 1
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TAAGCACCATCCAAAAAGTCTGCTTCATAATCTATTTTCAAGACTTGGTGATTCTGANAG
TTTTGGTTTTTNGACTTTGTNTCTCANGAAAAAANATTCCTACTTAAATTTTAAGTC
TATAATTCAATTTAAATATGNTGNGGCGTCTCATCCAGGATNGGATAGGTTGTCTTCTAT
TTTCCATTTTACCTATTTAC

Sequence 2064

CCCTTTCGAGCGNCGCCNNNCAGGTACAGACTTAGAAATTATCTAAAGATTTTCATCTT
TTTACCTCATATTTCTTAGGAATTTAATGGTTATATGTTGTCTTTTTTTCCTATGTCTTT
TGGCTCAAGCAACATGTATATCAGTGTTGACTTTTTCTTTCTTAGATCTAGTTTAAAAAA
AAAACCACATAACAATTCCTTGAAGAAAGGAAGGGATTAAATAATTTTTTCCCTAACAC
TTTCTTGAAGGTCAGGGGCTTATCTATGAAAAAGTAGTAAATAAGTTCTTTGTAACTG
TGTGAAGCAGCAGCCAGCCTTAAAGTAGTCCATTCTTGCTAATGGTTAGAACAGTGAATA
CTAAGTGGAAATTGTTGGGCTGCTTTTAAAGTTTCTCTTAATCAAAATTAAGATGATA
GAATTCAAGAACTTGGTACATGTATTACTTGGTGGTATCGATAATCATTTAAAAGTAAAA
GACTCTGTATGCATTTTTCCCATTTCTTTTTTTTTCCCTGTCTCCGGGGCCAACCCAA
GTGGGTCTTCATTTT

Sequence 2065

CCCTTAGCGTGGTCGCGGCCGAGGTACNCGGNGTCCAAGATGGCGGATGAAGCCACGCGA
CGTGTGTGTCTGAGATCCCGGTGCTGAANACTAACGCCGACCCCGAGATCGTGAGTTG
TGGGTGCAGCGACTGAAGGAGGAATATCAGTCCCTTATCCGGTATGTGGAGAACAACAAG
AATGCTGACAACGATTGGTCCGACTGGAGTCCAACAAGGAAGGAAGTCCGGTGGTTTGA
AAATAACATCTGGGCCTGCTGGAGAAAAAGAAAGATTACAACTTCGTTGCATATGACTA
CCGTAATAAACAAGAATACCTCAAAGCTCTTCGGAAGAAGGCTCTTGAAAAAATCCAGA
TGAATCTACTACAAAATGACTCGNGTTAACTCCAGGATGGAGTACTTTAATTTTTTTT
TNTNATANTTNCCAGGAACATTTTCTAATTATGTTATATAAATGGGTATGTGATATGTG
NGCTATTTGTGTGCTAATGTCCTAAGTGAAGTTCTGCAGACCATCTGGGTCAAAGTGCAT
TTCGCATGATCCAAAANATGAAGAACCCTTGTGTGTCACGGGAGACNAGGGAAAAA
A

Sequence 2066

CTTAGCGAGGTACGNNCNANGAACGCGGGGNGNTCAGGAAGATNTCTGAAGAGTGCAGC
NGCCTGAACCGAGCCCTGCCNAACAGCTGACAATTGCACTGCAACCATGAGTGA

Sequence 2067

CATGCAGAANTCCTCGCTGGAGTTTCATAAGGCCAATGAGTGCCAGGAGCGCCCTGTTGA
GTGTAAGTTCTGCAAACTGGACATGCAGCTCANCAAGCTGGAGCTCCACGAGTCTACTG
TGGCAGCCCGACAGAGCTCTGCCAAGGCTGTGGCCAGTTCATCATGCACCGCATGCTCGC
CCAGCACAGAGATGTCTGTGCGAGTGAACAGGCCCNCTCGGGAAAGGGGAAAGAATTTT
ANGCTCCTGAAAGGGAAATCTACTGTCATTATTGCAACCAAATGATTCCAGAAAATAAGT
ATTTCCACCATATGGGATTCCAGACCATGANGCCAAAGTAATTCCTAATCCCCACACAC
AGGAATGGCATGGGACCTGNGATTTTGAGTTTTCAAGGGGCCGTAAGNTTTTNTATTCTT
ACACCTNCAAATTACCCGACCCCAAAAAAAAAAAAAAAAAA

Sequence 2068

CCCTTAGCGTGGTCGCGGCCGAGGTACTTNTCCGATTTCAAGAACTGATGAAATTAGAAA
AAACACCTACAGAACATTGGATAGCCTGGAGCAGACCATTAACAGCTCGAAAATACAA
CAGTGAAATGAGTCCCAAAGCCCTAGNTGATACCTNATGTTCTTCCAACAGAGATTCTGN
AGCAAGTTTCATCCACATAGCCCAAGAGGCTCTCCCGACCCCTTGCTAGTTNCGGATGA
AGGTNCCACTGCCCTAGAGCCCCCTACGTCGATACCTTCAGCTTCACGTAAGGGCTCCAG
CGGGGCCCCACAGACGAGCAGGATGCCTGTCCCATGAGTGCCAAGAACAGACCCGGAAC
CTGGGACAAACCCGCAAGCAGTCCAACTGCAAGAACCNCGCCAATATCGNCAGGGCTA
ATGGAANTNCTAAGAAATCTTGGNNGGGGACTNTTAAAGCCTACTTTCCCTACTTACCT
GCTTCTAAAGATTCCAAGGCCNTTCTTCCAACTTTTGGG

Sequence 2069

CCCTTTCGAGCGGCCGCCCGGGCAGGTTTCATGGATNNGAGCAGCTTCACCAACCCCTGCA

TABLE 1
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AAGTGA CTCTGAAGAAGACGACAAGCCCTGCTCCAGTCACACCCGGAAGCTGACTGGTCC
ACGCACAGCTGAAGCATGAGGAACTCATCGCGGACTAATTTTCCTTAAAATTTANACT
TGCACAGTAAGGACTTCAACTGACCTTCCTNAGACTGAGAACTGTTTCCAGTATATACAT
CAAGTCACTGAGAGAACATCACCACCCTGAAGCCAGAGACTAACACTGCAGGACTCAGCA
GGACTATTTAAGAACTGAGGCATCAGACCACTTTCCCCACAAGTCTCGGATCTT
TCCTGCCATGCTGATGCCATATATTCCAACGTGATCAACCTGGCTCCCCAGAAGGAGGAC
GACTTTGCTGTCTACACCAACATGCCCCCTTTTCATCACCCCAAGAGGACATTGCCAGAC
CAAGTGGGAATATGTCTTCCATTGTATTTCCAACCTGATGGGGAAAGCCTANATGAAGATG
CTCAAGAAGNGGGGGGTCAAGACCCTGACCCCAAGCCTGAATCTTTGGCATTACCCTTTC
TTTAAATTTAATGTGGTGGNGNTTTAAAAAAAAAAAAA

Sequence 2070

CCCTTTCGAGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTCNGCGGGG
NGNNCTACTTNANAATCTTTGGCNGGTTTNNCNGTTTTNGGTTTTCTNANCNCTTGGNCT
GGTNCATTTGGTTTNGAANAATCNGTTNCTTCNGATTTTNNANCAAANGGTTTTTNGNCA
AANGGTTTTNGAANCTTTNNCCTTCTTCNGTNGAAGTNGTGGGTTTTTNNANANANAAA
AATTGGGGTTNATCATTTTTTCTAGGCCNGAANGTTTNGNNCNTNCCTNTTTCANAATCT
ANATTAATAC

Sequence 2071

CCCTTTCGAGCGGCCGCCCGGGCAGGTNCNGGTTANCAGACCCACAACACGAAGCTCCTG
CCTTTTAAGACTACAAAGAGGCAGCTCAAAATTAGACTGCACAGGTAAGCGAGGAAGTGC
AGTCTAAGCCTGGACTCTGCCTTCTGCCCTCCCCCGCGTACTCAAGCAATAAAAT

Sequence 2072

CCCTTTCGAGCGGCCGCCCGGGCAGGTNCTNTTTTTTTTTTTTNTTTNGCNGAGTGAGCTA
CTNTAGGATCTTNTGCTGGTTNTACAGTTTTTGGTTTTCTTAGCACTTTGTCTTGTTCAT
TNNGNTTNGAAGAATCTGNTTCTTCTGATTTTTTAACANAAGGTTTTTGACAAATGGTT
TTTGAAGTCTTTTACCTTCTTCTGTTGAAGTTGTTGGTTTTTTAGAAGAGAAAAATNGT
GTTTATCATTTTTTCTAGGTCTGAAAGTTTTGCGCATTCTCTTTTCAAGTCTAGATTAA
TAACTAAAAATCTTAAACTTGNTTTTTGAAGAATTTTACTCTTCTGACAAATTCTTCGA
TTAACTTTTCTCAGATTTTAAAGTTAGCTAAAAACAAAANTTCTTGTGTTGNGTTTNTTAA
TNTCGAATGCTNACTCTGTATCTTTCAAGTTTTNCAATTTTTTCGATGTCTTAGCATCAA
AAACAGATTTTAAACGTCTTCAAATTACTTTTAAATCTGTTCTGAGCTAAACNGTC

Sequence 2073

CCCTTAGCGTGGTCNCGGCCGAGGTACGTGCTTATACAAGATGTCAATTATGTGGTCGTC
CACATGCTGTATTACGTAAATTTAAAATTTGTAGAATTTGCTTCCGTGAAGTACTAGCTACA
AAGGACAAATACCAGGTATTAAGAAAGCGAGTTGATAATATGATAATCACAGATCCAATA
GCAGATATGATCACAAGAATCAAAAATGCCCTTACACGTAACACAAAAATGTTATTATT
CCTCATTCTAAGAAAAAGAAAGAATCTTACAAATCTTCTTAGATGAAGGATATATAAAA
GGATTTACTGTATCTGGTGAAGTTAAAAAGAAATTAATGTTGAGCTTAAATACAAAGGA
AATACAAGTTCAATTGNTGGAATTAAGAGTTTCCAAGC

Sequence 2074

CCCTTTCGAGCGGNCGCCCGGGCAGGTGGGCAGGTACTTCAGCAAGTCTCTTTCTCCTC
AGCAGTAAGCTCAGCCGGCAGGTGCCTGACCAGAAGGGTTCGGTCGCCCCGAGGCGGGGA
AAGCGAGGAGGAGCTCGTGCATCCCCTTGATATCGCAAGCGGCTGCTCGGGAGCTGCCAT
TTTCCTTGAGAGAAGCAAAAACAGAAATCGTGGGAAGAAGTCTCAGTCAAAATCGCGGCAT
CAACACAAGCTGGGAGAAATATTTTTTCCGCCTCGCGCTAAGGATTCTGGAAACCAGGAA
ATACCGAGAAAGAAAGTCACCTTCTCGCGAGAAGTGCGCCACCGAAAAGCGGCAACCCTT
CGAAGACTCTTCGGGGAAGGGCGCGGTGCTAATGATTTAAATTCGAAGGGGTCTNCGGAA
AGACTTACAAAGCCAAAAATTGGCCCAAGATGTGCGANGGTTAACACAAGTTGTCAAT
CAAAGAAAGGAACAGGAACCCCAACCCCTTTAAGGA

Sequence 2075

TABLE 1

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CCGCCCCGGGCAGGTACAAATTGAGCTCTCTATTTCATAACCTCAATGTATGTATTCTGCC
CATTAAATATACTTTGCACCAGCAAAAGCGATTTCCAACATATGTGTTTTGGAGGTAATTA
AGTAACTCTGTATAAAAAATAATGCACTTTTCCCTCCTTTCCCAGTGAATGGAAACTT
CCATACTTTCAAATAATAATAAAAAATAATTTTAAAGAGCAACAGCCCTCAACTCTTT
GCTGGTGCCTGCCATACTGCCTTTCTTCACTCCATTCTTAGCTCTGCTAGTTTCTTCTTG
TATGTCATGATAAAAGGGAATGTGGGTGTGTAACCTTTTGTGTATGTCCCGTTTCAAAT
TTCCCTCTCCAAAAGCCAACCAAATAAACAAACAAACGAAAAAACAGTGCAACA
AAACACAAATAGCATTCCAACAGTT

Sequence 2076

TTTCGAGCGGCCCGCCCGGGCAGGCACATAAAACATTATTCCTTCCTTGGCCTAAAACTC
ATCGCCACCTACATTAAAGCTAATATGCCTGATTACTGTTTTAGAGAACTTATTTTATT
AGGGCAGTTCCAAGCTCAAAAATACGCTAACTGGCACCTTGTTAGCTACATAAAAATGCA
CCCTAGACCCGAACTTACTAGACTCATTATAAAATTTTCTTTAAGGTGTCCACGCAGTC
CCTGGTCACACTTGAAGCAGTCCGGAGAAATATCAGCCCTACCCAGTAATCCCCAGAAG
GAACTTACACTTTTTTTAATCTTTTCTTACAACCTTCATATTTATAAATAAAAAAGACAA
AAATGTCAGGCCTGTGAGCTGAAGCTTAGCCATTGTAACCCCTGTGACCTGCACATATCC
GTCCAGGTGGCCTGCAGGAGCCAAGAAGTCTGGGAGCAGCCCGAAAAACCACAAAGAAGT
GAAACAAGCCAGTTCCTGCCTTAATACTAATTAACCCACCTTACGACATTCCACCATTATGA
CTTGTCACCAATTATGACTTGTTCTGCCCTGCCCAACT

Sequence 2077

CCCTTTTCGAGCGGCCCGCCCGGGCAGGTTTANGTCANAGTCTTCTNNTCTNNTCTNNTGA
GATGGAGTCTTGCTCTGTTGCCAGACTGGAGTGCAGTGGTGCGATCTGGGCTCACTGCAA
TCTCCACCTCCCGGGTTCAAGCGATTCTCCTGCCTCAGCCTCCCGAGTAAGTGGGACTAC
AGGGTGCGCGCCACCAAGCCCAGCTCATTTTNGTATTTATAGTAGAGATGGGGTTTCACG
ATGTTGGCTAGGGATGGGTCTCGATCTNTNGGTCAGAGTCTNTTCTGTAAATATCCTT
GGGTAAAGAAAGCAATTTTANACTGTAACTGATGNCAANATGCTTTAAGGGAAGAAGGC
N

Sequence 2078

TCCCTTNCTTTCTCGCACGTTTCGGCCGGCTTTTNCCTGTCAGCTCTAAATCGGGGGGG
CTCCCTTTAGGGGTTCCGAATTTAAGTGGCTTACGGGAACCTTCGAACCCCAAAAAA

Sequence 2079

CCCTTTTCGAGCGGCCCGCCCGGGCAGGTNCAGGGTCTGTCAGAACTGTTGGAATCTTACA
TAAAGTCAAGTCTCAGAAATGTCCGATGCTTCACCATATTCTTATATTCTATGCAATTGT
TGTCTGTGCACTAATCATCTCGACCTTCTACATGAGATACAGAATTAATACTCTGGAGGA
GCAGCTGGGGTTACTAACCTCCATTGTGGACACCCATAATACTGAACAGGCAGCACCATC
TGGCCTGAGGTCACAAGTACCTCGGCCGCGACCACGCTAAGGG

Sequence 2080

ACCNTATAACGGCCGCGAGTGTGCTGGAATTCGCCCTTTTCGAGCGGCCCGCCCGGNCAGGTA
CGCGGGGNTGGTTCCAACCTTTCTGCTNATCTGGGAGGTGNTGGGCGCGACAGTCNAGA
TGTCAGAGAAAAAGCAGCCGGTANACTTAGGTCTGTTAGAGGAAGACGACGAGTTTGAAG
AGTTCCCTGCCGAAGACTGGGCTGGCTTAGATGAAGATGAAGGATGCACATGTNCTGGGA
GGATAATTGGGATGAATGACAATGTAGAGGGATGACTTCTCTAATCAGTTAACTGAGCTG
AAACTAGAGAAACATGGGTTATAAGATGGGAGACTTCATAGCCATCCAGAAGAAGTGCTG
AAGTAAACCTAAACCTTGACCCTGCTNAAATACATTGTAGGGGCAAGAAGAACCAAGGA
ATGGGGACACT

Sequence 2081

CCCTTTTCGAGCGGCCCGCCCGGGCAGGTACGCGGGGNAAGTGTGGCGCCGCCACTGTCCG
GCCACAGCCTAACGCTCTTNGCTGTGCTTTGNGGNCTCGCGCAGGGCGGCCCGGNTCTG
GTGTTTGGCNGTCGGAATTAACAACCACCATGTCCGAGCAAAAGGCAAAGACCAAGAC
CACCATAGAAGCGCCCTTAGCGTGCAACATCCAANGNGTTAGNCATGTTNGACCAANNCA
CAGATTNGAGGAGTTCAAAGAGGCCTNCAACATGAGTTGATCAAGAAANANGAGATGGCT

[illegible]

CNTCNCGCCACGGACGCCCGGCTNTCCCCGNAAGCNCATAAAACGGGGGCCNCCCACAA
AGGGGGCCGANANAAGAGCNNNAACGGGNACCCNCGACCCCCAAAAACNNGGAAANAAG
GGGGGAAGGGGNCAACGCAAGNGGGGCCAANCGCCCGGANAAAACNGGAGANNACCGCC
CCNCNGAACGGANGGAAGACCANCGGCCCAAAAAAAGGGGNCCACGGGGCCAAANCAG
GGAACAACACAAACCCCAAAANCCGGGGCCANNCCNNTGGAANCAAAAAGGGANANG
AGCCGAACACCGNCCCAATGGGGGA

NATTGCGAANTGGGCCGCTCTTCNCGCTNNCTCGCTCACTGACTCCGCTTGCGCTCGGTC
CGNNCGGCTGCCGGCGAGCGGGTATCAAGCTCACTCAAAGGCGGGAAANACNGTTATTCC
ACAAGAANCAAGGGGGAATAAACCGCCAGGGAAAAAGAACATGGTGAACAAAAAGGCC
AGCAAAAAGGCCAAGGAAACCCGAAAAAAGCCNCGGTTGGCTGGCGTTTNTTCAA
TAAGGCTCCGGCC

CCCTTANTTTNGNCNTTNNCGANGNACCACACATAGGTAGCCNGCATTGGAACAG
GCACCGTGGGCTGGGCTGCACCACACCATCTTTCCATGTGTTATCTCTTTCTAGAGACTT
CTTGAAAATTGGTAGGATTATCATATCATATGTTCTTGAAAACATGCTGTGACTATTTCT
GTACATCATGGCTCGGACTTGGGTCAAGCTCTTGGCACCATGTCTGGCATGAGTGTTG
GATGCCAGCAATCAGGTAAGGGACAAATTTGTGGATTGACCCTTTGTCTGCACAGCACC
AGACACTCCCTGGGCCACTTTGATTTTGTCAAGCTTCACTGAAATATCTGTTCTGGCTGC
TGAGGTGCTTGTCCCATGGCATCGAAGAGAACCATACCGCATATTTCTTAGCNCGGA
TCCCATCGGAAAAAGAAAGTANTCACCAGGGGGCCCTAAGTGGGTGGCAGCCAGGAAGAG
AGCCCCATCATGGACTGNNGGAGGCCCAAGGGGC

GGAGCTCCCCGCGGTGGCGGCCGAGGTACATTTTTAAAGAGTTGTTTTTGGCCGGGGCGC
NTTGGCTCATNCCTGTAATCCCAGCACTTTGGGAGGCCGAGGTGGCGGATCACGAGGTC
TGGAGTTTGAGACCATCCTGGCTAACACAGTGAAATCCCGTCTCTACTAAAAATACAAAA
AATTAGCCAGGCGTGGTGGCTGGCACCTGTAGTCCCAGCTACTTGGGAGGCTGAGGCAGG
AGAATGGCGTGAACCTGGAAGGAAGAGGTTGCAGTGAGCCAAGATTGCNCCCCTGCACTC
CAGCCTGGGCAACAGAGCAAGACTCCATCTCAAAAAAAAAAAAAAAAAAAGTACCTGCCC

TTAATTGCGCCCTTGCGTAATCATGGTCATAAGCTGTTTCTGTGTGAAAATTGTTAT
TCCGCTCACAAATCCACACCAACATACGAGCCCGGGAGCATTAAAGTGTAAGAGCTGGG
GTGCCTAAATGAGGGGAGCTAACTCAACATTTAATTGCGGTGCGCCTCACTTGCCCGCTT
TTNCAATTCNGGGAAACCTTGCGTGNCCAGCTTGCANTTAATGAAATCGGCCAC

CCCCGCGTCCGCTCGNAAATTGTTGATGCTCTTCCCCTCCCCGAGGTCTCGCATNCAA
 ANCCTGGTGGGCTGGCCTTGTTGGCTGCTTCTCCAGGCCTGGTCAGNACCCAGCAGGCT
 CAGGGTCTGCTCCTGATGCTGNGCTCTGGGACAGGCACGCCACTGTGNGAAACACTAAGC
 NAGGTAATCGAGCATTTNGTGATCACAGACTCCAGCTTCTGGTCCACCCAGCATGTAGT
 CAGCACTCTGACCTTNACACCAGAGCTCCACAGCGGCTAGGAGTTGACTTCCTGTGTCAT
 GACCTCAGGAAATAAATTCCTTGACTTTAAAAAAAAAAAA

TTTCTGCTGAGACGCGTGTGGCTNCCTCCCCGCAACANCCAAAATGNTGAAGCTGATCGAG
AGCAAGGAAGCTTTTCAGGAGGCCCTGGCCGCCGNGGGAGACAAGCTTGTCTNTGGTGGAC
TTCTCTGCTACGTGGTGTGGACCTTGCAAAATGATCANGCCCTTCTTCCATTCCCTCTGT
GACAAGTNTTCCAATGTGGNGTTCCTTGAAGTGGATGTNGATGACTGCCAGGATGTTNCT
GCANACTGTGAATTCNAATGCNTGCCAGACCTTCCAGNTCTATAAAAANGGGNCAAAAGGN
GGGGGNNNTCTACNGNGCTAACAAGGAAAAGCTTGAAGCCTNTATTACTGAATATGCCTA
ATCATGCTCTGAAAAGTGGGACCAGCTNCCAAGCTGNTTNAACCTCGTACCNTTNTTAA
TTTGCTAAAAACTATGAAAGTGTGGAGAGGCTATCCCAACTGNCATCTGATTATTAGTGA

TABLE 1
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CAATAAAAAAANTAATTCTACCCCTTNANAAAAA

Sequence 2095

TGTGTAGCACCTGNGGNGTCCTTGNGTGATTATTCTGTNCGAGGTAAGTCTAGGGCAAGTC
ACATGCCCTCCATCCCNTGGCTCANAGATGAAGAGTAAATCCAAACATGTGCCTCGCTC
TTGGTCACTAACTGCTGNCCTG

Sequence 2096

TCGAGCGGCCGCGCGGCGGAGGTAAGTCTTNTTAATGCCTTNGTTGGAGTCCTNATCCTCATC
TTTAAAAAACAGNTTANCCTAAGCCANATTCACCTTTTATGTTNACAAAA
GGATTAANTNGCCACANTGTGATT

Sequence 2097

ATTNCCCTTAATCATCTCACGCCCCATGTATGATTCTCAAAGNGCCTAGCGTGANCAN
NGTCCCTNAGACCACCAATTTCTTNATGTCNCNCTCAAGAAAGCCAAATGACAATNA
TAANGCCATCTCAANCNCAATANCCTACCANAACCACCCNCGGNTTATCTANACTTCA
ACTCAAACCTCTGCTCCTTACTNTCTGGGGAGCTTAAACCANNTNACTNATAACTT
TAAAAACCTNTCTNTAAATNTCANAAACCACANCTCACCATTNNCACAACCACCCCA
ACACCAANANNTTCCCAAACAACC

Sequence 2098

CCCTTAGCGTGGTCGCGGCCGAGGTACACCAAGACCAATTGCTAAAATCTTGGATTATGG
AAAATTTAAGTATGAAAGAAAGAAAAACAAAAAGTTGAAAAAGAAAAACAATCTTTCAC
AAACAATAGAGAAATTCGTTTATCTTTTGAATCAATTAAGNGATATAAAAATCAAAGC
AAAAAAGCCAAAGAATTTTATTAGATAACGACAGAGTAAAGTGGCTCTTCGTCTTAG
AGGGCGTGAAAAACAAGACCTGAACAAGGTAAATTAATTTTAAATCTTTTTTATGA
AGTAAATCGATTGCAAAATTAAGTAAAGAAATGCAATCAGTTGGTAATTTTTTA

Sequence 2099

NGNCCTTNCGAGCGGCCGCGGCGGAGGTACAAATTGAGCTCTCTATTTCATAACCTCAAT
GTATGTATTCCTGCCATTAATATACTTTGCACCAGCAAAAGCGATTTCCAACATATGTG
TTTTGGAGGTAATTAAGTAACTCTGTATAAAATAAATGCATTTTCCCTCCTTCCCCA
GTGAATGGAAACTTCCATACTTTCAAATAATAATAAAAAATAATTTTAAAGGCAAC
AGCCCTCAACTCTTTGCTGGTGCTGCCATACTGCCTTTCTTCACTCCATTCTTAGCTCT
GCTAGTTTCTTCTGTATGTCATGATAAAAGGGAATGTGGGGTGTGTAA

Sequence 2100

NCCTTAGCGTGGTCGCGGCCGAGGTACACTGGAGGCTGGAGCCTGCAGATGGCATGGCTC
TGCGGCTCACCTTGCTGCAGTTGGTGGTGACAGAGACTGCAGCTTGACTGTAGTGAA
TTTGAAATTATCTGTCTGGAAGCTCTGAGTTTATCTTGGGACCTCAAGAGGAGAGGATC
ACCAACTCACAGCAATCAAACTCCAAATGGTGCTATAAACTGAACCACACATGGACACG
TCAGTCTTCGAGGACCCTTAGATCAACCCAGGAGGCCCTAGCTGCTGTTCCCCATT
CGACGCCCTTTCCAGCAGG

Sequence 2101

NAGGGGCGGGAATTTTGGGNGGGCCCCCTTTCTTANAATGCATTGCTTCCGNANGGCC
GGGGNCCCCCCCCAGTGGTGGATGGGATATTCTTNCCAAAAATTGGGGGGGGCCCTTT
TTNNGGNCCNAAAAAACCCNNGGGGCCNCCGGGGCCAAGGTTACCTTGGACTTGAA
AAATTTGGGGCNTTTTNTTTGGGGGNCCCTTTNCCNNNNNNNNNNNNNNNNNNNN
NNNANGGGCCCCGGGGTTNTTNCCTTTTCCAAAAANAGGCCCNNTTNNNGNGNGGG
GNGGGTTGGGGNAAAAAANNNNNNNNTTTTTTTTTNNNNNNNNNCCCCCCCCCCCN
TTAAAAANAAAAA

Sequence 2102

CCCTTTCGAGCGGCCGCGGCGGAGGCACTTATTTTTTTTTTTTTTTTTTTTTTCTTT
TT
TTTTNNTNAANAAAAAANTTTTTNTTNAANTNGGNCNAACTNTTAAACNAANN
AAAAAANNTNTTAAANGTTNTCNAAGNNGGNNNNNCCNNANAGGNANAAANGAA
AANGNNTNATTTTTNTTAAAAAANNTTNTTAAANTGTTGNGGNGGGGGTAGG

TABLE 1

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TTAAAAAAAAAA

Sequence 2103

CCCTTTGAGCGGCCGCCGCGGCGAGGTACTCTGTCTCTGTAGTCTCTCCATTCTAAAGTT
TAATTTGGAAAGGTCTGTCTGAATTATCAAAGTAAGAATACTCAGATTTCCATAAGCTC
TTCTCACCTCCTCTTAGCCCAACTCAAACCTCCATCAGACCTTCTCACCTTGATTTTGAGC
TGGAATGTTTCAATGAGCAAAATAAATTAGACAAANGTTAAAAAAAAAAAAAAAAAAAAA
NGTACCTCGGCCGCGACCGCTAAGGG

Sequence 2104

CCCTTAGCGTGGTCGCGGCCGAGGTACCTGACCCCGGTCTCAAGGAATCAAAGTTTAAAG
GAAACAGGTGTAATTACCCAGAAAGAGTTTGTGGCAGCTGGAGATCACCTAGTCCACCAC
TGTCCAACATGGNANTGGGCTACAGGGGAAGAATTGAAAGTGAAGGCATACCTACCAACA
GGCAACAATTTTTGGTAACCAAAATGTGCCGTGCTATAAGCGGTGCAACAGATGGAA
TATTCAGATGAATTGGAAGCTATCATTGAAGAAGATGATGGTGATGGCGGATGGGTAGAT
ACATATCACAACACAGGTATTACAGGAATAACGGAAGCCGTTAAAGAGATCACACTGGA
AA

Sequence 2105

CCCTTAGCGTGGNCGCGGCCGAGGCACCTTTTTTTTTTTTTTTTTTTTTTTNGCTTTTTT
TT
TTTTNAATGGCCAGGCTCCCAACATTTNAAAAAACTGCNCCCCCAATGGGTGAACAAA
GTAAAGAGTAGTAACCTAAAGTTCACCTGAGTAAGCCACTGNGGAGCCTTAAGNGGNGAG
GTCTTCCAATTTNANAGNGATGNGNCTTCAACTTGTATNATNATTTTANGCGGAAAAACA
TAA

Sequence 2106

TCGGCGTCGCGACCCCGAGGACCTCCTCTNCTCGCTCTGTGGCATACACTAGTCTCTGGG
CACTCAACCGCGGAGAGCCCCGACCCCGGGGTAGCGGCTGAGCCTCAGCCGGGACCGGN
ACCGGANCCCCGCGCGGAGCATGTNATCCGGGCTGGGGGCAGCTGGNACAGTGGGCTGGGT
TGGCCCTCCT

Sequence 2107

AATTTGTGTGTTTGTGTTTGTGTTGGGGTTTTTGTGTTTTATTTCTTACATTANAGTNCATA
TTTTCTGGGATTTAAATTATAGGTGTATTTCTATTCTCTTGAGAAGNAGACTAAACAG
TCTTTGCAATGATGACGGATGCACACAGANAAAACATTAGAAGACATTACTTTCTATCC
TCTCATGTGGTTGANCATTCTTACACGCCAAATGACTAAATTGGTGTTTCNTAGGAAGGA
GCAGCTGCTCAATTACAATGTGAAAATATTAATGTTTTAGGCCAGNNGGGCCAAACCTTCAA
GGGGCGCTNGTTGGNCAATTTATNGTCCCTNATNCTTTNAAAAATTTGAANGGTTCAN
NNAANTTGTNNAACCAACCAACAAAACNCCCCTTTNANCATNNGGGGGCAANGGGGTT
GGGGACCTTNGNGACCTTAANTGNATTGGCCAATTACCGCCTTGGGGCCTTGNTNAANGC
CTTCAACNCCNAAAAAATTTGGCCACCAATTGGGGGGTCTTTTNGTNANACCTTNTTTG
NACCAACCAACAACCTTAANCTTNGANCTTCAAAANGGCTTGGGGCNAGGGTANCAACA
ACNTTCAAGGTTTATNCCGGCTTCNCAAANGGNCCTTNAACCTTNTTTGGNGAATTTGA
AGGCTTAAAAACCTTGGCCATGGAAATCCCANCTTTAAGGGCCCAATCCCCTT

Sequence 2108

ACCACGCGTCCGAGCTCGCTCAGCACTCCCAGGTCTTAGCACTCCCAGGTCGTAGCTGG
CGCAGTCAGTAGGAAGTGAAGTATGTCTCTGATGCACCACGTGTTTAGACACAGCACAG
TCCTTTTTCTGTTCTACGGTGGAAGTAGTTTCTCTTTGGGCATGCTGACAGCACTTTT
TCATAGCCTCACCAGTACGACCTTTCTGCGGGAGTGACTCCATGCCTGTATACAGAGTAT
TTATACAGATGTTTTAGCATCTTCATATGCGGTGTTAACCCCTAGTTCTGTACAGCATAT
TCTGTTCAAGTATTTTTTACAAGCTTGTGCTGTAGGCACATGCCTTCTGCTGCAGAAGT
GGACACCCGTGGCACACCCACCCCGCCCCAGTGGGGTGCCATGCCTTCTGGGACATTGC
CACTTCTGCCCTGGAACTCATGCAGGTACGTAGTAGCTGCTATTGCCAGA

Sequence 2109

NCGCCTATCACATAGTCAAACCCAGTCCCTGGCCACTGACAGGAGCTCTGTCAGCTTTCT

TABLE 1
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TAATAACGTCCGGCTTAATCATATGATTTCACTTCTACTCTATCACCTACTAACA
GCTACTAACCAACACACTAACCTTATATCAATGATGACAGTGACATCGTACTGAGAAAG
CACATACCAAGGCCACCACCACAATACTCCCGTCCAAAAAAGCNCTTCCGGTACCGGAA
TTAACAACATATTTTATCANTTCTCNAAAAAGTTATTCTTTTNTTTATTCGNGCCTTCT
TCTTGAGCANTTTTTANCCACATCTAAAGGCCCTCAGCNCCACAACAACACCTGGCTTTA
AGGNGGGGCNCAATTTGNACCCANCCANACAAGGGCGATTACANCCCCCCCCCTGNAACCC
CCCCATTAGTAAAGGTACNCCCCTNNCTTAAAAACAACCTTCTTGNNATTTAACTTTG
NCAATCCTTGGGGGGGTNAAACAAANTCAACCTGGAAGGCTTACCNACAAGNCCCTNC
ATTAATAATTAAATNGACCCCGAAAAAANCAAAACCAANTCCCAAAGGCNCCCTGCCTCA
TTCACCAATACCTAACTTAGGGTTACCTTAT

Sequence 2110

CGTCCGGGACCTTTATGTCTTGTNAAGATGTCTAGGCCTGGCCGGGCGCGGTGGCTCACA
CCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGTGGATCACGAGGGCAGGAGTTTGAG
ACCAGCCTGATCAACATGGNGAAACCCCGTCTCTACTAAAAATACAAAAATTAGCCGGGC
ATCGTGGCACATGCCTGTAATCCAGCTACTCGGGAGGCCGAGGCAAGAGAATNGNTTGA
ACCCAGGAGGTGGAAGTTGCAGNGAGCCAAATCACGCCACTGCACTCCAGCCTGGGCAG
CANAGTGAGACTCCGNCNTAAAAACAAAACAAAAAAGCAAAACCAGATGTCTAGG
CCAATGATAATTATTTTGTATGCATTGTGGATTANGNTCTTTTGTAAACCCCACTGTCTT
GGGGAATGATGCCTGCTGGGAAATTGAGTTTTTGAAGTGAACATGGAACCTTNCTGCTT
TTTTTCTGGNTCCTATGAAGTTTTGGAACATNTGAAAACACAAAACTCACCTGAAAT
TTGAGCAGGTCGATGATGGCAAAAAATTATT

Sequence 2111

GCGTCCGCTGATCTGCTTTGGGACGGCCTTTATATACTTCCTCCTTTCCAGGCCTTCCAC
CACCAGTGACCACTATTTCGACATCTGGCCCACTCTCAGTCATCCTCCTGCTTATGCTTGT
CTNCTCCTTGAAGGCTTCCCACTGCATGTAGGACAAAGGTCAGATTTTGTAAACAGGCCAG
GCCTGGNCTTNATAGTCTGGNATCCACTAATTTATGGTCTNAGTCTNATCCCTTGGAGGA
TTACCTCTGNCCTTNGNAAGCTCTGTGCTCCNG

Sequence 2112

TTCATAACAATTCTCCTACAAATCACCTTAATTCTGACATTTCATGGCCACAGAATAATT
ATATNCTACATTCTATTTGAAACCACCTTATCCCCACCCTAATTATCAGGTACTAAATG
AGGCAGCCAAGCAAAACGCCTTAACGCAAGNACTTACTTTCTATTCTACACACTAACCGG
CTCTCTACCCCTACTCATCTACTAAGCGCACACCTACAAACAACACAGGCTCACNTAAA
CATCACAGCTANCTAACACTTCACGNGACCAAAAAACNTAACAACCCACCTGGGNNCCC
CACAGCANTTACCCTGGGCCTAGCNANTGGCATATATAAGCGCTTTTATGGACCAAAAAA
TACCCCTTNTTATNGGGGTCTACACNCTTATTGACTTCCCNCAANAAGNCCCATGNTTGT
AAAGCCCCNCATTTGCAAGGGGNTCAAATANGTCCTTTGCACGNCAGNTACCTTCCTTAA
AAACTAGGGCNGGCTATGGGGCAATAAAATACCGGGNTTTAACTCCCCATTTCTTCAAN
ACCCCTTAAACGGGAAATTANCATAAGCCNTACCCCATTTCCCTCATTATTAATCCCTTA
TGGGGGNCNATAANTCATAACAAAGGCCNTAAACANTGCCTCCCGACAA

Sequence 2113

TTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGCTACTTTTTAAACAATTTCAACTGCA
GCTCTCTTTCACTAAGTNAGATGGGNAAAGCATGCCATTTCTGTTTNCCTTGNGATTTTA
CTTTTAGAAACACACATGCTTCCACTGCCATCTGACACTTCTCCACACGCTTTCATNTT
GTAAACCTGAATTCTATTTNGAGTACCTATCAAATACTTTCTGGAGGNGGGGCACGCTCC
GCTCGGTCATGATGCTGATCCACTTGGGAACATCAGTTCTTTCTCTTCACTCCAGCGT
CATAGAGATCCCGAGCATCTTGGNNAATCAGTTCATAATCAATGACAGAGCCATCCTCTG
CTCTTCTACCTTTGCCA

Sequence 2114

GTGGGGGGGGGGGGGGGNAANCTCGTTGGGACNCGCCCCNAATTNNNANNNNAACNNNGNN
CNNNCTNGAGGGCGAAGGNATNNATAAGCTTGAGGGGGGGGGGCTGGANACCGANGNATC
CACTAGTTCTAGAGNGGGCCGCCNACCGGGGTGGGNGCTNCAGCTTTTTGTCCCTTTAG

TGGAGGGGTTAATTGCGGCGNTTGGGCGNNAATNATGGGNCATTAGGTGGTTTCCTGGNG
TGGAAATNGTNATCCGGGGGGGAGGTNCANACAAAATAGCNGAGCCCGGNNAGNATAAN
AGTGTAAAAGCC

GCTCCCCGCGGTGGCGGCCGCCCGGCGAGGTACCTGTTGTGTCCCTTTCTCTTCAAAGAT
CCTGAGCAAAACANNGATACGCTTTCATTACCTNATGGGGGGGNCNNGGACCCAGCTCT
TGGCATTGCTANGGNNGGCTANNATCNGGCCACNTGAGGNTGTGGANNN

CTAACTCACATTAATTGNGTATGCGCTCACTGCCCGCTTTCAGTCGGGAAAACNCTG
GTCGTGCCAGCCTGCATTAATGAAATCGGCNCAACCGCCGCCGNGAGAGGGCCGNTT
TGC GTATATGGGCAGCTCTTCCGCTTTCCTCGGNTCACTTGACTCGCTTGCCTCGGGTN
CGTTTCGGGCTTGCGGGCGAAGGCGNGTATTAGGCTCACTCAAAGGGCGGGTNAATACG
GGTTATTCCAACAAGAATTACAGGGGGGATAANCGCANGNAAAGAACCATTGTTGAAGCCA
AANAGGGCCCCAAGCAAAA

[illegible]

CCGCGGTGGCGGCCGCCACGCTGGTTTTGCATCTTCAGGAGACGCTCGTAGCCCTCGCGC
TTNTCCTCGGCCAGTTTCGCGGAAGAAGTGGCTCACGCCTTCCAGAGCCACATCATCGCGG
NCGAAATAGAAGCCCANAGAGAGGTAGGTGTAGGAGGCCTGCAGGTACAAC TTGTTGGCC
TACATAAAACACCTAGATGGTAACAACGAGGCAGCCCTGGAATGCTTACGGCAAGCTGAA
GAGTTAATCCAGCAAGAACATGCTGACCAAGCAGAAA TCAGAAGTCTAGTCAC TTGGGGA
AACTACGCCTGGGTCTACTATCACTTGGGCAGACTCTCAGATGCTCAGATTTATGTAGAT
AAGGTGAAACAAACCTGCAAGAAATTTCAAATCCATACAGTATTGAGTATTCTGAACTT
G

GGAGCTCCCCGCGGTGGCGGCCGAGGTACCTAACCTACCTTTAAGACTGGGATAACTATT
GGAAACAATAGCTAATACCGGATATAGTTATTTATCGCATGATGAGTAATAGAAAGGAGC
TTCACAGCTTCACTTAAAAATGGGGGTGCGGAACATTAGTTAGTTGGTAGGGGTAATGGC
CTACCAAGACGATGATGTTTAGCCGGGCCGAGAGGCTGTACCTGCCCCG

TGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTTGGGATGGAGTCTTGCTCTGTT
 GCCCAGGCTGGAGTGCAGGGGCGCAATCTTGCTCACTGCAACCTNTTCTTCCAGGTTCC
 ACGCCATTCTCCTGCCTCANCCTNCCAAGTAGCTGGGACTACAGGTGCCAGCCACCACGC
 CTGGGCTAATTTTTGTATTTTAGTAGAGACGGGATTTCACTTGTGTTAGCCAGGGATG
 GTCTCAAACCTCCAGACTCTCGTGATCCGCCACCTTTGCCTCCCAAAGTGCTGGGGAAT
 TACANGGCATGAGCNCACCTTGCGCCCNCGCCAAAAAAACAACCTTTTTTAAAAAATGG
 TACCTNGGCTCGCTCTAAGAACTAGGGGGGATCCCCGGNGCNTGCAGGGAATTCCGATA
 TCAAAGCNTTATCGATTACCCGGTCTGAACCCTTNGAGGGGGGGGGGGCCCGGGTACCCC
 AGCTTTTTTGGT

GGTACCTTGTCTGGAGAATGCAGTGACAGCACCGGCCCATGCTTGAGAACCCANGCGGCT
GTGCAGAGGGCAGCCGACCACTATAGCCAGCAGATGGCCCAGCAACTGAGGCTCCCCACA
GACACGCTCCAGGAGCTGCTGGACGTGCATGCAGCCTGTGAGAGGGAAGCCATTGCAGTC
TTCATGGAGCACTCCTTCAAGGATGAAAACCATGAATTCAGAAGAAGCTTGTGGACACC
ATAGAGAAAAAGAAGGGAGACTTTGTGCTGCANAATGAAGAGGCATCTGCCAAATATTGC
CAGGCTGAGCTTAAGCGGCTTTCANAGCACCTGACAGAAAGCAT

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GGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCNGGCCAGGTACCCTTGGAAGATGGGAA
AGGTGAGGGAAATATNNGAAGCAGGGTCAGAACATCCACTAAGAACATAGCACCTNAGTA
NAGCTTACATTATATGAGCCAGGGTAGAGTTANTACTGAAT

[illegible]

GCGAATTGGATCTCNCCGCGGTGGCGGCCGAGGTACCTTTTTAAATCTAGCCCAGTATAA
ACATTAGCCTGCTTAATATTTAGACATTTATAGGTAGAATTCTGAGCACTCAACTCATGT
TTGGCATTTTTAAAGTAAAAACAAGTGTGACTTCGAGGACCAAGAAAATTGTCAGCTATAC
ATTTATCTTTATGAAGTCATTTATATTCCTTTTAATGACTCGTTGTTCTAACATTTCTT
AGAAGTGTTCTTATAAAGGTCTAATGTATCCACAGGCTGTTGTCTTATTAGTAAATGCAA
AGTAATGACTTTGTCTGTTTTACTCTAGTCTTTAGTACTGGTTGTCAGGATTCAGCCGAA
TGGCTTGCCCTCAGAGGGTCAATGGCGTTCTGAGATGGTGGCCAGTTGTCCAGACGGTAGC
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GC GCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTA CTGGTGAAAGTTCTTGATGAGGG
TCTCAATGGCCCTCTCCACATCACTGAATTCCTGAGCATCCTCTGCGTTGGCTGACCGAC
ACTGTCCCATGGTGCCCATGTGTCTGGTCCTTTGGTGAGAGTTCTGTTGTCCTATAGCT
GGCCCCAGAGGAGCTGATGGCTCATGATCTGTTGGCAGCCGCTGAGACAAGACAGGAGGC
CCCCGCTACCTGCCCCG

CCGCGGTGGCGGCCGAGGTACCCGGTGCGCATAAGAGGAAGATTTCTGAAGAGTGCAGCT
GCCTGAACCNANCCCTGCCGAACAGNTGANAATTGCACTGCANCCATGANTGAGAACAAT
TAGAATNCCTTGGNGGGCAGCCTACGGNANCTNAAATGCCATTTAACCTGGAACCTTGATG

AATTGGAGCTCCCCGCGGTGGCGGCCGAGTACTCACGANGTCATATGTTATTTACAATT
GGGTTTGTGTGGGATGGGAAGTAGGGCGGATGAGCCAGTACTTNTGCAATGAAGATGCAA
TAGTCNTTGTCTNTCCCACTGTCNCCTNTTTCCTCACCCNATGGCAGCTTACATGACCT
ATTCCCAAAGGGTCCACCGAGNCCTGAACTCAGCTTCATCACCACATTCTCGCCTTNA
GNAAGAATTCAACACTGTATAAGGGAGTNGAGGCANAGACTTGGGNCAGGGNGAGGGTGG
NNAACACNNAAGCACACTNTCTTGTCATCAACCCAAGTTCAGAGACAAGGCCTCCNCANA
TGNGGAAGATGATGCCCTTAGACACCNCAACCTGNTTGTCTNNTTCTNTNGAAGCNCAAA
GCAGCCTGNATCTCAACTGAAGAGAAGGGG

TATAGGGCGAATTGGAGCTCCCCGCGTGGCGGCCGCCGGGCAGGTACGGGGAATGGAA
TGAATGGAATGCAATGGAATGGAATCTTCCGAATGGAATGGAATGGAATGGAACGGAA
TGAACCGAATGGAACCGAATGGAATGGAATGGAATGGAATGCAATGGAATGGAATCTTC
CGGAATGGAATGGAATGGAATGGAATCAACCCGAGTGCAATGGAATGGAGTGAATGGAA
TGAATGGAATGGAACAACCCGAATGGAATCGAATGTAATGGAGTTGAATAGAATCAATC
CGAATGTAATGGAATGGAATGGAACCGAATGGAATTGAATGGAATGGAATGGAATGCAA

TABLE 1
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TGGAATGGAATCAACCCGAGTGCAATGGAATGGAGAGGAATGGAATGGAATGGAAGGGAG
ACTACCCGAATGGAATGGAATGTAATNGAGTGTAAGGGAATTGAATAGAATCAATCCCAA
TGTAATGGAATGGAATGGAATGGAATGCAATGGAATGGAATCTTCCGAATGGAATTG
Sequence 2129

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACNCGGGGNACTGAAANTCCA
CACGACANAATAGCCAGATCTCAGAGGAGCCTGGCTAAGCAAAACCCTGCAGAACGGCTG
CCTAATTTACAGCACCCATGAGGAAAGGCCACTTANGGATGCAGCAAGAAGGAGCCATCT
GCAATCCAGGAAGAAATTCCTTGCCAGGAACCAAATTGGTTGTCACCTTCATCTAGGACT
TCTAGCCTCGAGAACTTACAAATGGTGATGATCATCAGGTCAAGGATAGTC
Sequence 2130

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGAACTGAAAATCCAC
AAGACAGAATAGCCAGATCTCAGAGGAGCCTGGCTAAGCAAAACCCTGCAGAACGGCTGC
CTAATTTACAGCANCCATGAGGAAAGGCCACTTAAGGATGCAGCAAGAAGGAGCCATCTG
CAATCCAGGAAGAAATTCCTTGCCAGGAACCAAATTGGTTGTCACCTTCATCTAGGACTT
CTAGCCTCGAGAACTTACAAATGGTGATGATCATCAGGTCAAGGATAGTCTGGAGCAATT
GAGATGTCACTTTACATGGGGAGTTATCCATTGATGACGATGAAATGCC
Sequence 2131

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGCGGCAGGTACTATCATTAAATGTAT
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CACCTGGATATGTGTTCTGTTTCTAAGCGACATTTGTGAGAGATTATTGTAATGAGA
GCGAGCAAATAAACTTAATTTAATCTTTGCAGATACATACTTATGGGAAATTTGAACAA
ATGAGTGAAACTCTGTGTTTTAGTAGGCTGTGATAAACATTTCCGGGCACCTTTGCAAAA
GGACTTTCTTTTTGCCGGGNGCTTAATNANTTAATAAAAAATTTTTTAAAGTTAAAA
AAATNGTGGNAAANAAACTTTTTTTTTNTTTTTAAAAANNAGGNTTNNANNAAC
NTTTNTNTTNGCCGNANNAANCCCCCCCCCGGTTTNCNGGGGAAANAAAAAAAT
NNGGGCCCNCCNTTTNTTTTTTNCNGGGGGGGGGGGGGGGGGGNTTTTTTTTTTGN
GAAAAGNGTGTTTTTTNNCCCCCCCCCCCCCTTTTTTAANANAAAAAAATTAATTGGG
GGNNNTTTTTTTTTTNNATTNNNNACCCCCCNCAATTNGGTNTTTTTANNTNAANANC
CCCCCNGGCNTTNTNATANATGCCCCCNCNCCCCC
Sequence 2132

GAGGTGGTTACATTGTCGAAGGACACCAGCTGCGGAATTTGCGGNTTGGCAGATTGAA
ATCATGGCNGGTCCAGAAAGTGATGCGCAATACCAGTTCACTGGTATTAATAAATATTTCT
AACTCTTATACTCTCACAGGTAGAATGAAGTGTGTACAGAATCCATTCTATTCTTTACT
TGCTACATTATGACCATGAGGAGGGCANAGTAGAGGTGAAGTCTCTGTATACTTGCTGAA
AGTCTTCTGTACCT
Sequence 2133

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGCAGGTACTTTCAGTAAGAGATGGG
GTTTCACTATGTTGGTCACTATGGTCTTGATCTCTTGATCTCGTGATCTACCCACCTTGG
GTTCCCAAATGTTGGGATTACAGGTGTGAGCCACTGCACCAGGCAAACCTGCGATCTTTT
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ACTACTGTGATACACTACTTGAGAGATGGATTGTTGCTCTTTCTTCTACAGTCTTACANG
GAGTAGATTATAAAGACGGAAGATGTTACCATTTGCNTTAATTGTTGGAAGCTGANAGCT
TTTAATTTTTGGTTNCAACTGTTTTGNGGGANNTCCCGNAAAAATTTTNNNNNAATTTT
TNTTTTTTNGGGAAAAGGGGNCNTTTTTAAAAACAGGGGGGGGNGGAAAAATTTGN
GGGNGGGGGGCCCCNNCCAAAAAAGGGGGGTTTTTNTTNCNGNNNCCCG
GGGGGGGGNNGGNCNTTTTTAAANCCTTTTTTTGNTTNCNCCNAAAAAANNAACC
CCTNNNGGGNGTTTTTTTTT
Sequence 2134

CCGGGCAGGTACAAGAGATAGAAAGACCACTGCTTGCTGAAAGACAAGTCTGAATGCTCC
ACTTTTTCAATTCTCTCTCATTCTTCAAGTAAGTCAACTTCAATGTGCGGATGGATGAAAC
CCAGACACATAGCAATTCAGGAAATTTGACTTTCCATTCTNTGCTGGATGACGTGAGTAA

TABLE 1

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ACCTGAATCTTTGGAGTACAGGACAATNAAGACTACTCCTATNTGCGGAACAACTAGCTT
TCTATTTAGTTCTAGAATGTTGAACTGACCGATTGGCTGACATAAAAGTCACATTTTAC
AAAAAAGTGTCTCCAAATGCTTTGACTAGGGGAAAAACCCCTTTTCAATTAGAGGGAGCC
ATTNTGCAACAAATTTCCACAAATAATTGCTTATTCCAAGGGGCAANGGCACCATTG
ATATNNGGAAATTTTTTGTNTTNGNGCCAAATTTAAGGGNA

Sequence 2135

CGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCCAAGACTCAGCACTAGTCTGATG
ACCTGCTAATTCAGTACAGCATAGGGCTGTCTGTTGTTTTGCGCAAGTTGGTGTGAAC
AAAGTTCACAATATCTGGTGAATAGGAGCCTTGAATACAGCAGGCAAAGTGACATTTT
GCCAGATGACTCCCCCTTTTCGGAGTACCTTGTTCAAAAAACACCGCTGAGTCACTTCCA
GGTGCTGTTAAGTTTTCTTAGTGAAGATGTCTATACCAGAGGGAGCATAGTTCAGATG
ATTCCTCAGCGGCAATGTAGTAGTGTCTAACATGCTTCCCACGGATATTATCCTTTTGA
TGAAGACTTTGTACACTCCTGGACCTGGAAAAAGGCTTGCAAACCGGC

Sequence 2136

TNNGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGCCGAGGTACCTGAATGTAGAAA
CAATGAGGATGGACCTGGTTTAATAATGGAAGAACAGCACAAAGTGTCTCGAAGAGCCT
TGAACATAAAACACAGACACCTCCTGTGGAGGAGAATGTAACCAAAAAATTAGTGCCTG
GNAAATTTGGGCTGATGAGCTTTCTGGATCCTAAGCCACCTACCGAATTNTTGGANGGT
GGCTGNNGGTGTGGGGAAACACAAGTCTTTTCCAATTTTACAAAACGAACCAATTGACC
CCAGGGACTTNTTGGTTTATTGGGTGGGG

Sequence 2137

CCGCGGTGGCGGCCGNGTNCNCGGNGCCNGAAGAGGAAGATTTCTGAAGAGTGCNGCTG
TCTGAACCGAGCCCTGCCNAACAGCTGANGAATTGNACTGCAACCATGACTGAGAACANT
AAGAANTCCTTGGAGAGCACCTACGGCAACTAAAATGCCATTTACCTTGNAACTTGAT
GGAGGGGAGAAAACT

Sequence 2138

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGNGCCAGGTACCANATGAANNG
NNAAGACAAGGCCATNCNCCACTTTATAGAGGGNGTNAAANTAAACCANAGNTCCNGGGA
GAAAGAAANG

Sequence 2139

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTGTTTATCATATTTAGGTTATTTATT
AATGAAAGGTATNTGANATTTTCAGGAATACAAATTTTGACCCTGATGACCTCAAATGC
GTGCAACAAGATGTTTAATACANGAAAAATAACACAAAAACTGTTGTTACAGTGGTTAGAA
TTTTTAACCTTTAAAAAACCATGAATTTGTATTGNTTTAATTGCACAATAAAATAATGTTG
ATATATACTTAAGCTTAAATTAATTNCAACANGGNAACATTTTCCAACCCAGAGGTGTG
GCCTGATGTTGGGGTTCAANTCTGGACTTNTATTTTTTGGGTANCACACTCAACTTTTGA
ATTGTNTTAAGGGNTTATTTNANCCATTCTAACTCTANGAAAAATNTTNAATTNCGT
TTCCCAAAGNCATTANCCGNGGAATTTTTTGTGATTTTCTNCAAGAAAAAATTTTTCGG
GAGGTTAAAAGGAAGGNGTNTAATATCACTTAATTATCCCAACATTTTCTAAAGGGGGGG
GGAAAC

Sequence 2140

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTATCAGCTAATTGGGCTCCTTT
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CCCTTAATGTCTTGTAATCAAGGGGCCAGATGGCGTTCGTCAGGCTTTCCAGCTAAGG
GAGAGTCTACTCATATGGGAAACAAGCCTAGGTAATTAAGGAGACAAAAAGGGAAAATTT
AAAAATAGGGTTAGTAAAAACAAGGTTAAATAGGGTTAGTAAAAACAAGGTCAGGCA
TTACAAAAGGATTCTCCTGTCTCAGCCTCCACTGGGATTACAGGCTCGCACCACCAAGCC
CAGTTAACTTTTGTATTTTATGACCTGCCCCGGGCGGC

Sequence 2141

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTT
NTNAGCAAGCACGTGCACCTTATTGAATGACACTGTAAACAGGTGTGTGGGTATAAACTG

TABLE 1

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CTGTATCTAGGGGCAGGACCAAGGGG

Sequence 2142

TGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTCTTACCCTTGTCCTCTCCTAA
AGGGAGCACAAGGAACTGAAGAGACTGAAAAAGAAGAGAGTTTGTAGCTGCAAAAGAAT
AGGGATAGCAAGGAAACCCAGAACTGCATTCCCCTAAGTGGGGCCATCCCATGTGATTGA
ATTGTCCATAGCTTGCCTATGGTGAGAAATGTGCATGCTCCGTGAGCTGGTCTCTTGAAA
CAGGACTTATGCTTCCTCTATATTCTGGTTAAATTTTCAAACACATAAGTTCAGTGAGC
ACAGATTTCTTATCCAGAGACAAGTAGAATCTAACCAGAGACTGTTGGCAGAGTTTCCAG
GCACTTAGCCATGTTCCCTTCTGACTCAAATCCCCAAAGGCCTTCACTCTCACTGAGAA
TCACACTACTGTCCCATAGATAAGGCAGGCATTGAAGCACCTGTGCGTGATCCTCTAGGGG
GGAGAATGAAAGGTTATTTTCTGCATTGCATCATCATAGCTTTTAATA

Sequence 2143

AGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGNGGNGCANNNGCTCTACAGAATAGAGGCN
ATNCTTTAGCTTAAGCCTGTCTGCTGACCAGAGAATGGAATTNTGCGTGGNCTCANGGAA
CAAAAGGAACTAGGCAGGGAAGGGGAAGAAAAGTGC

Sequence 2144

GGCNAATTGGAGCTCCCCGCGGTGGCGGCCGNGGNACTTNTTTTTTTTTTTTTTTTTT
TTTTATACTGATAATTCTTTATTACTAAAGGTTTATTTACATAGNGTTTANNGCNTAAT
AAAAATAAATTACAATACAAAAGTGCTNTTTAGGAAGGAGACACTAAACAACAGGCCCA
TNTTACCCTTGCTNTTTNGCCAAGACATAAGCTACAAATTTTGCCGGAAGAACTGNCCA
TACATTTTTAACTACTTCTTCATTATTCTTATGGACCATCATCCAGGACATNTGTTTGAA
GAAATATCCAGTTATAATATTTTCAAAGGNTNGAATTGNGAAGAAAAAATATAAATGT
GATTAAGGATNTNTAGCCTTCAGATGTAATTTACNGGGTTTAAAAATTGGCCCTTTAA
AAGTTTTGCTTTTTTAGACNAGNNNTAAAAAGGCACAATGGAGACNCCATATTGTTANTG
GATTTTCANAACNGGGGNTCTTNTGNGNAATNCNTACCANTTTTTTT

Sequence 2145

AGGCACNAGANGANTTTNCTTTTTTTTTTTTTTTTTTTNCTGNNATACAAAGAGCAGATT
TTTATTGAAGTTGGGCNATACTATATTNCCATACAATNTAAATATTCATGAATAGTTTC
CCAAGTCTGGAGCGACCATAGGGAGAAAATGTAATGTCTCAATTTTTGGTTNCACNA
AAATGTTTTTTTTATATCAAAATTTGNTTNTNAAAGCTTGGNGGATTAGCTTAAAAANA
AAAAAAGTTTCCTTGAAATCNGGGAACAAGACATTTTAAATGAATCAANCAAAATTC
AAATTAATAAATTATGAAAATATTATCCTCATTAGTTTCATTTAGTGCCCATGGAAANT
TAATTATTCTCTCTGCNTTGATCTTTGGGGGACAAAGTTTCAATGGAAAGCCTGTCAGNT
TAANTTCATTAAGTTT

Sequence 2146

GCTCCCCGCGGTGGCGGCCGAGGTACAAAGGAATAAAATGTTACAACCTAAAAAACAA
AACACCGTAAACATTTAGAGTAAACATGACAAACGTGCTGCTTTAGAGGAAAAGAAG
TTTCATTTGAAGAATTTGGACTTCAAGCTACAACATCTCAATGAATAAGTGCAAGACAAA
TTGAATCATGCAAGGATTGCCGATTACAAGAAGAATGGGTCGTGAAGGACACGTTAACAT
AAGAATCTTCCCTCATCTATCTTACTAAAAAGCCTATTGGAGTTAGAATGGGATCTGG
TAAAGGTTGAGCTGAAAAATGAGTAGCTGTTGTTAAAGAAAATACAGTTATGTTTGAAGT
TGGTGGAGTTAAAGAAGAAATAGCTTCGTGATGCACTTCGTTTAGGTGGACACAACTAC
CNTGTTAAATGGAANGAATAATTNNGCANGGGAGGAATAATGGAATTCAAAGATTTAAAG
AAAAAACTACTGAGCATTTTAGAACCGTTATTAANTTGAATATTAAATCAGAGCTTTTT
ACCCCTTCGTTTTAGAAATTAACCTCAACCACTNGGATCATNCCTCNAAAATTCAAAC
AAGGTTAGAAAANGGTTTTNCCCGGAATTTTACNNCAATTTAGCCACCCAAAAA

Sequence 2147

TCCCCGCGGGGCGGCCGAGGTACATNTGCCTGNCTNCCTNCTGTCTTCCTTTTTATTAT
AAGGATACATTTATAGNACCCCATAGAAGGAAAAGATAAATTTCATAGGCTGNTAAAAGA
GGCTAGGCCTAAGTTATAATGCCTCCTCCTCACAGNCCAATTTNCCCAAGGGGCNTTANC

TABLE 1
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ACCAGAGCAGNTTTTCTAGCTTGNGGACAATNCCNNCAGGCTTGAGTGATAATGNCCCNG
TNGCGGTAGCTCTCCACTTGNTNAAGGACCAANACACCTTAGCAG

Sequence 2148

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGCGGCAGGTACTTTTTTTTTTTTTT
TTTTTTGACTTTATATATAATACTTTATTTTATACAATTCAGTATATCATGTTAACATA
TTTCACTTTTAATTTTATGATATGTGTGACATATTTTAAATTTTATGGATTCAATTATAC
TATCATAATTTTTTTAAAGTTTGTATCTTTCATTAATAAGGAGGNTCCTTATTAATGGAT
TTTTTTTCTGTAGCTTCTGAGAACACATTTTATAGATACCCGGCTTCTAGTTATACCTGA
AGCTCCACAGTGTAGACATGTTTTGGCCAACCTTGTTTTATCGGTGTATGAAATTTGTGC
TAATAGGATGGATCCAATTGTCATTACATTAGAAAATAAATGGGAAACATTTCTT

Sequence 2149

TCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGCGGCAGGTACTTTTTTTT
TTTTTTTTTTTTTTGACTTTATATATAATACTTTATTTTATACAATTCAGTATATCATGT
TAACATATTTCACTTTTAATTTTATGATATGTGTGACATATTTTAAATTTTATGGATTCA
ATTATACTATCATAATTTTTTTAAAGTTTGTATCTTTCATTAATAAGGAGGTTCCCTTATT
AATGGATTTTTTTTCTGTAGCTTCTGAGAACACATTTTATAGATACCCGGCTTCTAGTTA
TACCTGAAGCTCCACAGTGTANACATGTTTTGGCCAACCTTGTTTTATCGGNGTATGAAA
TTTGTGCTAATAGGATGGATCCAATTGTCATTACATTAGAAAATAAATNGGGAACATTTTT
TTTTACATTNNGGGCAACNTACCAAAATTTT

Sequence 2150

CCGGGCAGGTACACGGGCAAAGGGGCTTGAGAAGGCCCGGNGGCGAAGCCGAAGAGAAGC
AACTGTGCCCGGAGAAGAGAAGCTCGCCCATTCAGACTGGGAACCAGCTTTCAGTGAA
GATGGCAGGGCCAGAAGCTGTTGCTCGACTCCAACATCCGCCTCTGGGTGGTCTTACCCAT
CGTTATCATCACTTTCTTCGTAGGCATGATCCGCCACTACGTGTCCATCCTGCTGCAGAG
CGACAAGAAGCTCACCCAGGAACAAGTATCTGACAGTCAAGTCCTAATTCGAAGCAGAGT
CCTCAGGGAAAATGGAAAATACATTCCCAAACAGTCTTTCTTGACACGAAAATATTATTT
CAACAACCCAGAGGATGGATTTTTCAAAAAAACTAAACGGAAGGTAGTGCCACCTTCTCC
TATGACTGATCCTACTATGTTGACAGACATGATGAAAGGGAATGTAACAAATGTCCTCCC
TATGATTCTTATTGGTGGATGGATCAACATGACATTCTCAGGCTTTGTCACAACCAAGGT
CCATTTCCACTGACCCCTTCGTTTTAAGC

Sequence 2151

CCGGGCAGGTACGCGGGGNANTGCNANANACNCAAANCNNGNTANTACANTGCATCAAAC
ATGTTCAAGATTNNCCAATTGACGGGATTGGATTNAAAGATATNCCACCACTTTTAGCAA
GATGGNGAAGTGCTAAATNACACAATTAATCAACTGGCTGAGTTAGCTAAAGATGCATAT
GTTATTATAGGTCCANACGCAAGANGTTTCTTNCTTGGGACACCTACTGCANCTNTTTTA
AAAAAACCTTTTATTATGGTAAGAAAACCTAAA

Sequence 2152

AGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTTGGNNGGCCATTACCCTACCAAC
TAACTAATGTTCCGCACCCCCATTTTTAAGTGAAGCTGTGAAGCTCCTTTCTATTACTCA
TCATGCGATAAATACTATATCCGGTATTAGCTATTGTTTCCAATAGTTATCCCAGTCTT
AAAGGTAGGTTAGGTACCTGCCCG

Sequence 2153

AGGTACACTTCTAGCACCTAGCAGAGAGAGGCTTCACTACATNATGCTTCCTGACATCTC
TCCCTTTGAAGAGCAGTCAGACTCCTGCTTTGCTCTTCAGACTTAATTTGGGGGTTTAAAC
AGGTGAGGTTGCTGGGGGAACCTCTTTACAACATCTCTGAAAGAATCCGGGCTGCCAG
TTTCATTTGGTTTGGGTGTCAGTAGCATGATGGAAAGACAAAAAACACAACCTTGACATC
TGCAGAAATGGGTTCAAATTTTACCTGCAACTACCAATTCTGTGGCCTTGGTTTCAGCAA
TTAAACTCCCTAAAATTAGTTTTTTCTTTGTAAAATGGGGTTATGAACAGTACCAATG
AAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCA
AGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAA
AATGGAGCAGATTCTGAGGCTTTCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAA

TABLE 1
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ATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCOTTCA
GCATCAAGCTGGAATGGGG

Sequence 2154

GNCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCCAGGTAAGTGTGCACGTNGGTTAN
AGGCTGCGTGGCAGGANNGNGNTCAGATTNTCCCCTGCACNGNAATTGGGCTTNNAGGGG
GAAATGGTGGGGCCATCT

Sequence 2155

GAGCTCCCCGCCGTGGCGGCCGCCCGGGCAAGGTACANGTGTGTGTGGGTGAAATGGAGA
TTTGGAAATTGAACTCTCTGCCTGTAAATGTTCCCCAAATAATTGTTGTGTGTATGATACC
GTGTATAATAAAAGTATTCTTGTAGAAATCTGAAAAAAAAAAAAATGTAAAAAANNNTAA
AATAAAGGTTCTTGGCCCCGCTNTANAAGTAGTTGGATCCCCCGGG

Sequence 2156

CGGCCGCCCGGGCANGGTACGCGGGGACACAAGACATCATCTTGAAGGAAGGATGGCTTT
GGCCAGACCAAGACCGAGACTTGGAGACCTGATTGAGATTTCTCGCTTTGGCTATGCACA
CTGGGCCATCTACGTGGGAGATGGCTATGTGGTCCATCTGGCTCCGGCAAGTCACTGGTG
CAGTCACGACAGTAGGTGTGGCAGCAGGCCTGCTGGCTGCCGCAAGCCTTGTGGGGATCC
TGCTGGCCAGAAAGCAAGCGGGAAAGGCAATAAATCCAAGAAATTGTCCCAACAACCACCA
ATTNTTACGGAGGAATATTATTTAGCCAGCAAGGAGTGGAGTTTTGGTTTACTTGATTTT
ACTGNTTTTNTGGTTCATGGAATCTTTATTTTAAATTGGAGTTAAAAANCNCAGGNAAAT
GTNTTTTGGAAATTGCACCTTNTTATNGAATTNTTTTAAAGACACAANTTNGGGCTNTT
CCNAAAAAAAAAAAAA

Sequence 2157

CCGGGCAGGTACCATTGAGTTTAATTGCTTCGCTCCGATGAATGAATTCCTGGCCAAT
GCACCAAAATGATACGGCTCCGATGACTGGAGGAACACCAGGGTCTTGGTCTCGCACCA
GTTTAGATAAAATGACACAGACACACATGTAATGGTTTTAAGGAGTGGAGAGTTTATTAG
GCAAGAAGGAAGGAAGAAGAAAACAGCTCCCCATACAGAGACAGAGGGAGGGGGGATTA
GAACAAACAGAACTTCCCCGCGTACCT

Sequence 2158

CCGGGCAGGTACAGCGTCATATAGGCTTTGCCTTTAATGATCTCTTACGGTTAGAAAACA
CAATAAAAAACAACTGTTCCGGCTACTGGACAGGTTGTATATTACCAGATCATCACTAGCC
AGATGTNACGTTGGCACATTTGAAGTCCTTTATTGAAATTCATAAATAAAGAATTGTTT
TTTCTTTGTGTTTTAATAAGAGTTCAAGGAATTGNTCAGAGTCTTGTAATGTTATTT
TAATAATCCCTTTTAAATTTTTATCNTGTTGCTGTTTACCCTCTNTGAAATATGNATTT
TATTTTAGATTTGCCTAATGNCCANTTCATTTCAAGGNAAAATTGCCCAAGAGGGGTAT
TTCCCTTTNGGGGAAAAANNNGGGGNCNTCTTTACCAAGTGGTAAANTTTTTTTTCCC
TCCCTTTTAACCCCTTTTGTCTTAATCATTCCAANTGNGGCANGNAAATTTTTTTCCCTT
AATNCCCCTTTGGTTGAAGNGGCAANGTTTGTGTTGGAACCTTGAAGTTT

Sequence 2159

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCCATCCTACCCGG
CCTGGGCTGACCCATGGGGAAGGCTGGCTAATTTCAAGTCTTCTGCTTGGTTGTTCAAGG
CCATTTCAAGTTTGGGTGTTTTCTGGGATGTTAACATGGGATTCAAGGCTCAACTCACAA
GAACTTTTCCATCTCATGATGGATGCTGTTGGGCATGTCCAATGTATGACTTCATGAGT
TACACAGATGCTAATTCGTAGGGGCACTTGAATCACATGGTTGTTTTGTGTCCTGATGGT
CAAGCATTCTATCTTATCAGGGCCTACAGTAACATGCCAAAAGTTGCTTCCAACATATTT
CTCTGCTTTGGATG

Sequence 2160

AGTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATCCCCAGTCGTGGCCCTCTGGACAA
GTGGCGGGCCCTGCACTCATGAGGGCTTCCAATGTGCTGCCCCCTCTTAATACTCATTG
TCAATTTGAGAAAAAGGACATATGAGTTTTTGCATTTATTAATGAACTTCCTTTGAAAA
ACTGCTTTGAATTATGATCTCTGATTCATTGTCCATTTTACTACCAAATATTAACAAAGG
CCTTATTAATTTTTATATAAATTATATCTTGNCCATAAAAAAAAAAAAAAAAAA

TABLE 1

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Sequence 2161

ATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCCACGTAAAGACGTTAGGTCA
AGGTGTAGCCCATGAGGTGGCAAGAAATGGGCTACATTTTCTACCCAGAAAACTACGAT
AGCCCTTATGAACTTAAGGGTCGTTGAAAAANAAANGANTCANAANTNTANAAAAAATN
ANGNNCCTN

Sequence 2162

NCCGGNCAGGTACGCGGGGCACAGCGGCTTNCCTTGATCCTTGCCACCCGCGACTGAACAC
CGACAGCAGCATGNCTCACCATGAAGTTGCTGATGGTCCTAATGCTNGNGGTCCCTTTNC
CAACNACTGTTTACGCANGGCTTCTGNCATGCTCCCTTTATTTGGAGAATTGNGANTTTT
TCAAGNACAATTNCAATTNCACCAAGTTGTTCTAATNACCTGAAATATCCAACAGANACN
NTTTTTNAANGAAGTTTTCANTAANACCNNACAANTGGCCNACTTTACNAAAATTGGCCA
TTATTATTGAAATNTGTAANNNGNANATTGTTT

Sequence 2163

GACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGGGACAACACAAA
TACTGCAACTCCAACACTATGGCAATAACAATCACAGCAATGACCCAAACATCCAAAC
TGTCAGTATTCCTTCCTCAGGTTTAGGATATCCTGGATAATTTGAGACTGGAGGCTTGT
AAGTAGGCCTAGGACCTGAGGCACTGGACGCTGGAGATTTTGTAGTGGAAGAAGTCGACA
CTTTAAGACACTTTGGAAGTGGGGGATCCCAAGTACTTGTGGAAGGTGGACACCATCACA
TCCAGGGCCTTCTCCAGAGGGGCACGCCATGACAGCAGTCAGGATCAAACCAAGAAAGAAG
AAGCGCTTAGGAGAGAGGGGTTGTAGAGAGGGGGAAGAATTCCCGCGTACCTTGCCCCG
GGCGGCCCGCTCTAGAACTAGGTGGGATTCGCCCNNGGCTTGCCGGGAATTCNATTTTCA
AAGCTTTNTCGGATNACCCGGCGACCCTTCAAGGGGGGG

Sequence 2164

ACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTT
TTTTTTCGAGATGGNGTCTTGCTCTGTTGCCAAGCTGGAGNGNAGGGGCGCAATCTTG
GCTCACTGCAACCTCTTCCTCCAGGTTACGCCATTCTCCTGCCTNAGCCTCCCAAGTA
GCTGGGACTACAGNGGCCAGCCACCACGCCTGGCTAATTTTTTGTATTTTAGTAGAGAC
GGGATTTCACTGTGTTAGCCAGGATGGTCTCAAACCTCCAGACCTGGNGATCCGCCACCT
GGGGCTCCCNAAAGNGCTGGGATTACNGGCATGAGCCACTGGGCCCNNGGCAAAAAACAAC
TTTTTAAAAATGGACCCTGGCCCNGGGCGGGGCCGTTTTTAAAACTAANGGGGGATNC
CCCCNNGCCTNGCANGGGAATTTCCAANNATCAAAGCTTTTNTTTGGATAACCCGCCNN
CCCCNNTNNGGGGGGGGGG

Sequence 2165

AGGTACAAGATAGTCATCTCAGTAAAAGGTCTATTATCTAACTTGCCAACTTGTTTACT
GAGAGCCCTAAGGAACTAAAAGTCCATAATGCCGNGCACAGCTTGNAAGCANTTAGAG
TAAGCAAGATTAGTTTTCTCCCTTCCAGTTCCTCAGCAGGCCTGGCTGAAGGCCANG
AGGGAAGGAAATATAAGAACCAACAATAAAAAATAGCAANTNGCAATAAGGAAGAATGCCA
TCCCCATGGTAGGCANACNCAATANATTTNTGGAAACCCACCTNTTCCCGGATCANGG
CCTTTCCATTTGCTCACCGGATGCNTNACCGCCTGGGGCCGGGCCGNCTTCTAAGAACN
TAGNTGGGATCCCCCGGGGCTTGGAAGGGGAAAATTTCTAATAATTCAAAGCCTTTAAN
TNGGAATACCCCGTNCGGAACCCCTTCCGAGGGGGGGGGGGGGCCCCCGGTTACCCCA
AGGCTTTTTTTGGNNTTC

Sequence 2166

CCGGGCAGGTACGCGGNGACGAAGTTCGGTCCAGGTCTCTGACTTCGGGCTTGTTGCT
GGTGGCNGTCGGAGCCGAGCCGACTGGTCAGGATGANCACGGACGTGCAGNTCGCCATC
TTCGACAACATG

Sequence 2167

AGGTACTCCTGGGCAACAGCGAGACTCCGTNTCAAAAAAAAAAAAAAAAAAGAAACCAT
TTATTTTAAAAATGATTAGATTGCTATGCCTCAACTCATAGAAGATGAACCCTTCAAGAA
AACGTGAAGNAGGAACCGGGNGGGCCANNAATGAAAACAGGCAAGTANAGNTATTANTT
NGGAAAAACATTTTNTCAACACCAATGTAAAAAGACTTTCCTTTGNTAAACCTGGG

TABLE 1
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ATTATGAGNAAGAACTTTTTCAATTGGGGTTANNTTCTAGGGATANACTCAAGTATNTTT
GCANCCACCTTAANAAAACTTGCCATTAGAAAAACCTGNAAAAGGTTTATTGTTTCCCA
GNATAACTTTTCCGTTGTTTTACCCAAATTTTTNTTTAAGAACTTTG

Sequence 2168

AGGTACTCCAGGGCTTCATTCATATTTCTTCCAATTTGTAGACGAACCCAAGGAGGCTC
AAGCTTTCCAGATCTAATGCCTTTCTCCGAAGTTTCTTAAAAACCAATTTCTTCAAAGAA
TTTGATACTTTTATCCCTTTGTTAATGATAGCCCTGTTCTATTTTATAGCTTTTTAAAT
AATGGATAATTTGCATTGACTGTCAGATTTCTTTGAAATTCCTGNAAACNCGACNCATN
AGTTGGAAAATTGNTATGTCTCTGCATTGTTTTCTTCTACCACNTGGNTTTCATCGCNAT
TAAACAATTTTTTTGAAAAATTTCTCTTTCAAGCCTTTNTCTGTGGATTGGCCTGCCT
TCTAATATTACCAATTTCTTGGCCANGGGTCTTAGGATGTAGCCACCCTCAAAAATG
TGGGGCCTTTTTTTTTTCCACCTGGCAAGAATTCAANAATCGGAAAAATAATGGGGCC
NTG

Sequence 2169

CGAGGTACATTTTNAAGAGTTGTTTTTTGGCCGGNNTTCAGTGGCTCANGCCTGAAATN
CCAGCACTTTGGGAGGCCGAGGTGGGCGGANACGAGGGCTGGAGATNGAGACCATCCTG
GCTAACAAAAGAAGAAANCCCGTCTCTACNAAAAATACAANAAATTAGCCAGGCGNGGG
NGGCTGNGCACNCTAGTAGGCCCCAGGCCTACTTTNGGCAGGCCTGAGTGCAGGNAGTAA
TGGNCCGCGCANCCCTGNCAAGNGAAANTAAGGNTNTGCNNGTCCGAGNCCCAAAGNANT
GCGGNCCCCCTTGCCACNCCCAAGGCNCTNNGGCCAAACCAGAAGGCNAAAGGANCTCCCT
ATTCCTCNAANAACNCAAGATATACCNCAANNNGCGAGGGAGGTTTNNGGTTNCTTACCTC
ANTTGGGCNNCAAATTNATAAGGGNTCAATANNANCNAGGNNTAACCAATAAANNACCCN
CACAGGGGNNTCCTTTAACCAACCNTAAANNACCTGGGGTCAAGTCCNAAATAAAA
A

Sequence 2170

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCCAGGTACCTGCTGGGAGAAGTT
TCTGAACAACNATATCTGGGATACACAGAAAAAGTNTGGAAGANGAGAAAGAAANGCCTAA
ATNGGAATGAGATCCAAGACTAAACGCNAGAGCTAGATTGAGCCGCATTGAAANCTCCT
TCCNNTTGGGGCNTTGGCAGAGGGGAGAAAAGGCTTCAAAGGAACTNGGTGGCATNANC
ACCCCCCTCCCCCAATGAGGACACCT

Sequence 2171

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCCAGGTACTCACTGAGCTCAAGA
CACACTTGGTGCTTGCACTGCTGATACCTGCTCTTTGCCGGCCCCCGCGTACCATCCCAT
GTGGAATCTGTGAGTGTCTCTTAAGTAGCGTGGGCTAGCCAATCTGCTCGTTNATGGGT
GTATTTGTAACTCCGAATTCATATGTAATANGGATGCAAGTCTAAGCGTTTCATGTGG
ACATAAATGTATCTAAATAAACTTTCCCTAGCACTGTGGCTGACCTCACCTTACTTTT
ATACTTTAGTATGAACTGATGAGAACTTTGGTAGNGAGTATTTTTTTATATATATACA
TATATATGTATCTATCTATATATATCTCAAGCATCTTTCAGGTCTTTGTGTNGTGGNT
TTNTTAAAGCCCCCTGTTGTAAAAAAATTACTATTGTGGGATGGGCAGTCTCTCACATC
ACAGATGTNGAAAAGNATAATTTTTATANTNNGTATTTNCAANAAAAATAAAATCTGGGG
AAAGGTNNCATTCTNTACTGGNGGNCCAAAAAATCAATNGGTTTTGTNTGNCCAAAAAA
AAATATTAATAATTAATAATATANTTNTNTTGAACCTAAAAAAA

Sequence 2172

AGGGTACATTTTTAAAGAGTTGTTTTTTGGCCGGGCGCAGTGGCTCATGCNTGTAATCCC
AGNACTTTGGNGGCCGNGGNGGGCGGATCACGAGGTCTGGAGTTTGAGACCATCCTGGC
TAACACAGTGAAATCCCGTCTNTACTAAAAATACAAAAAATTTAGCCAGGCGTGGTGGG
CTGNNAACAGTAGTNNCAGNTACTTGGGAGGCTGAGGNANNGANAATGGGCCNTGAACC
TGGAAGGAAGAGGTTGCANTGAGCCAAAAAANTGCGCCCTTGCAACTNCAGCCTTGGGCA
ACAAGANCAAGACTCCCATCTCAAGAAAAAAAACAAATAAGNAAAAGTACCTTGCCCG
GGCGGCCCGCTCTANAACTAGNGGATCCCCCGGGGCTGNAGGGAAANTCTATANCAA
GCTTANNGAATTCCGCCNACCTNGGAGGGGG

TABLE 1
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Sequence 2173

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTATCCCAGCCCCCAGGTTTCGC
CTAATAGTCTTGGCTACTTCCCTACAGCTGCTAATCTTAGCGGTGTCCCTCCACAGCCTG
GCACGGTGGTCAGAATGCAGGGCCTGGCCTACAATACTGGAGTTAAGGAAATTCTTAAT
TCTTCCAAGGTTACCAGTATGCAACCGAGGATGGACTTATACACACAAATGACCAGGCCA
GGACTCTACCCAAAGAATGGGTTTGTATTTAAGGGCCCCAGCAGTTAGAACATCCTCAGA
AAAGAAGTGTTTGAAGATGTATGGTGATCTTGAAACCTCCAGACACAAGAAAATTCTA
GCAAATTCAGGGGAAGTTTGTCTACACTCAGGCTGCAGTATTTTCAGCAAATTTGATTGG

Sequence 2174

CCGCGGTGGCGGCCGAGGTACGCGGGGACTCGCGTCTGGTGGCGACTCCCGGACGTAGGT
AGTTTGTGGGCCGGGTCTGAGGCCTTGCTTCTTTACTTTTCCACTCTAGGCCACGA
TGCCGCAGTACGCGGGGGGTGAAGAAGGGGCCGCCCTCAAGCAACAGCGACGCAAGAT
GGCAGCCACCACGGGCTCGGGAGTAAAGTCCCTCGCAATTTCCGACTGTTGAAGAAGT
CGAAGAAGGCCAGAAAGGAGTAGGAGATGGCACAGTTAGCTGGGGTCTAGAAGATGACGA
AGACATGACACTTACAAGATGGACAGGGATGATAATTGGGCCTCCAAGAACAATTTATGA
AAACCGAATATACAGCCTTAAATAGAATGTGGGACCTAAATACCCAGAAGCACCCCCCT
TTGTAAGATTTGTAACAAAATTAATATGAATGGAGTAAATAG

Sequence 2175

CCGCGGTGGCGGCCGAGGTACCTTAAAGTCCTCCTGGCTCTGAAGCTTCATAAGATGCGT
GAAGAAGGTGAAGAGGAAGGNGAAGGAGTCGAGCGGCCCGCCGGGACAGTACTTTTTTT
TTTTTTTTTTTTTTTTTGGGTTTTATCATATTTAGGTTATTTATTAATGAAAATATATG
ACATTTTCAGGAATACAAATTTTGACCCTGTGACCTCAAATGCGTGCAACAAGATGTTT
AATACAGAAAATAACACAAAACTGTTGTTACAGGGGTTAGAATTTTAACTTTA

Sequence 2176

CCGCGGTGGCGGCCGAGGTACTTCTTACAGTCTTCAGGAAATTCATTAAATCAGTGCCTC
CAGTTCCTTTGGCTTCCAGTTTTGAAGGGTCTTCAGAGGTCTTATTCTCCTTTGGCTGCT
GGCTTGCAAGGAATCAGGATGTACTGTTCTGTTGGCCGAGTGGAGACTGGTGTCTCAAA
CCCGGTATGGTGGTCACCTTTGCTCCAGTCAACGTTACAACGGAAGTAAATCTGTGCAA
ATGCACCATGAAGCTTTGAGTGAAGCTCTTCTGGGGACAATGTGGGCTTCAATGTC

Sequence 2177

CCGCGGTGGCGGCCGCCCGGCCGAGGTACTTGTAGAGTGGTGCTGCTTTAATTCATAAATC
ACAAATAAAGCCAATTAGCTCTATACTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAGGAAAAAAAAAAAAAAAAAAAAAAAAAAGGTCCGNNCANTCGNG
GNGGCNTAACNCNCTNGGGNGGNTNTAGGGNTGGAAACNCTNAAATNNNTGTTTTN
ANNNGGNTAAAGNNTTGAATTTTGCCAGNTTNTAAAGTCATTAAAGNCAAAAGTTTTT
TTAAGGGGTNTTTTTTTTTTAANAAAACCCATTAAACNTTCCATTGGGCCTTANAAANGG
CCCCCGGGGTTTTNGGNAAANTNTTTTTTNNCCCCNNTTTTTNTGAANAAAAANN
GGGGCCCCCAANTTTTNGNTGNCCCCNCCNCCCCCANTTGGGGGGNNGGNGGGGAN
ANCCCCNTTTTTTTTTTT

Sequence 2178

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTT
TTTTTTTTTTTTTGCCAATTGTTATTTAGTTTTATTTTATAATCATAAACTTAACTCTG
CAATCCAGCTAGGCTNTGGGAGGGAACAAGGAAAACATGGAACCCAAAGGGAAGTGCAGCG
AGAGCACAAGATTCTAGGATACTGCGAGCAAATGGGGTGGNNGGGTGTCTCCTGAGCT
ACANAAGGAATGATCTGGTGGCAANAAATTAACCANTGCTTTTATTATCNANGCACTTN
CACTATGCACTTTTTCTGAAATATTTTGTAACTTTTTTGTATTTTGCCATTTGAA

Sequence 2179

CCGGGCAGGTACAAATGATGAAACGGAAAGACAAAGGAAATTTCCATTTTGAAGAAAA
AGTGTTTCAGTGTTAATGGAGCCNNGGGGAAACCATGGACTTTGGTCAGCTCTATCAGTT
CTTAAACACCAAGGATGTGGGGATGTTTTCCAGATGTTCTTTGGTGTANAAGGACAATG

TABLE 1

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ACATCAAGAGTNGTTGAANGTATCTTGCCACTGNTGGCCTTTTGATTTTTNTCCCACTT
TTTCTTGAAAGATTAAGTAATTTTATTTTAGTTCATTCTAGAATGTTGGGGAGTGNGGC
ACAAGAAAAAATANTATANCTGAAATGCATCTGTTAAAAATGTNATGATTGNAAGCATAA
CTGAGTTTCA

Sequence 2180

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGTAGCATGCCAGGAAAGGAAGAGAC
TGGGATGGTTTTTATCTGTCGCTTTCTTAAATCAAGGGCCGCCGGGCCGAGATGGATG
GAGGGACCGGGGATTTGGGAACTCGAAAACGAGCTGAGGGAAGGGAGCCTGTGGAAATAG
ACTGGAGTCTGGGTAGTGTGCTTTCCTAGAGAATGGTCTCGAAGTAACTTCTCGGTAAAG
TCTTCACGGAATTTCCAGACCACGCTTGCCCACTGGGAGGCTTTTAGGACCCGAGACGTG
TGCAGGCTTTTCCAGCCAAAATGAAGTTAATCCCTTTGTGACTTCCGACCGAAGCAAGA
ATCGCAAAGGCATTTCAATGCACCTTCCACATTCTGAAGGAAGATTATGTCTTCCCCTC
TT

Sequence 2181

TTTTTTTTTTTTTNGTTACATAAATTAACCCATTTATTATAGGCCAGTGATGTCTCAAA
GAGTAGAGGAGCGTCTACTGGTCTTTCAACTCCTTCAGTCTTCTGATGGCGGACTTTACC
GNGACAGCGGAAGTGGTATTGNACCTGATTTTATTTCCAGTTTTATCCGAATCCACTGG
GGAATGGGACGATTTTGCTTTTGTTTCTTGCCAGGAATCGCTTAATCCT

Sequence 2182

AGGTAATCATCGGCCAGCACGGAGATGCACAGGTTAAATGGTTTACCATCCTGAAAGGGC
ATATTGNGGCATGTACCTCATACTGCCAAGCCCCATTACGCGGCTGTTTATGACCACC
CAATGACCAAAGTACCTGCCCCG

Sequence 2183

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGGGCCCCGAAGCGTT
TACTTTGAAAAAATTAAGAGTGTTCAAAGNAGGCCCGAGCCGCCTGGATACCGCAGGTAG
GAATAATGGAATAAGGACCGCGGTTCTATTTTGTGNTGGTTTTTCGGAAGTGAAGCCATGATT
AAGAGGGA

Sequence 2184

AGGTACGCGGGGACTCGCGTCGGTTGGCGACTCCCGGACGTAGGTAGTTTGTGGGCCGG
GTTCTGAGGCCTTGCTTCTTTACTTTTCACTCTAGGCCACGATGCCGCAGTACGCGG
GGGGGTGAAGAAGGGGCCGCCCTTCAAGCAACAGCGACGCAAGATGGCAGCCACCACGGG
CTCGGGAGTAAAAGTCCCTCGCAATTTCCGACTGTTGGAAGAACTCGAAGAAGGCCAGAA
AGGAGTAGGAGATGGCACAGTTAGCTGGGCTCTAGAAGATGACGAAGACATGACACTTAC
AAGATGGACAGGATGATAATTGGGCCTCCAAGAACAATTTATGAAAACCGAATATACAG
CCTTAAATAGAATGTGGACCTAAATACCCAGAAGCACCCCTTTGTAAAGATTTGTAAC
AAAAATTAATATGAATGGAGTAAATAGTTCTAATGGAGTGGTGGACCCAAGAGCCATATC
AGTGCTAGCAAAAATG

Sequence 2185

CCGCGGNGGCGGCCGCCCGGGCCGGTACGCGGGGAAGTGAATCCACAAGACAGANTAN
CCAGATCTCAGAGGAGCCTGGCTAAGCAAAACCCTGCAGAACGGCTGCCTAATTTACAGC
AACCATGAGGAAAGGCCACTTAAGGATGCAGCAAGAAGGAGCCATCTGCAATCCAGGAAG
AAATTCCTTGCCAGGAACCAAAATTGGTTGTACCTTCATCTAGGACTTCTAGCCTCGAGA
ACTTACAAATGGTGATGATCATNAGGTCAAGGATAGTCTGGAGCAATTGAGATGTCACTT
TAC

Sequence 2186

CCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTTNGGGNA
AAGAAACCTTTAATGAGGATTCAAGGTTAATAAGGAAGACNCAGAGGGCCAGCACTCAGC
CCCAACCTNCTACGTGTACCAAGAAAAATAAGGAAGAGGCTGCAGAATATGCTAAACTT
TTGGCCAAGAGAATGAAGGAGGCTAAGGAGAAGCGCCAGGAACAAATTGCGAAGAGACNC
ANACTTTCTNCTGCGAGCTTNTACTTNTAAGTCTGAATCCAGTCAGAAATAAGATTTT
TTGNGTAACAAATAAATAAGATCAGAGTCGGTAAAAAAA

TABLE 1

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Sequence 2187

CCGCGGTGGCGGCCGCGCCCGGGCAGGTACAAAGACTATTGTAGAGACTATCCGGGTTAGTT
TGCAAGGGAAGCCAATGATGAGTAATTTGAAAGAAATTCACCTGGTGAGCAATGAGGACC
CTACTGTTGCTGCCTTTAAAGCTGCTTCAGAATTCATCCTAGGGAAGAGTGAGCTGGGAC
AAGAAACCACCCCTTCTTTCAATGCAATGGTCGTGAACAACTGACCCTCCAGATTGTCC
AGGGCCACATTGAATGGCAGACGGCAGATGTAATTGTTAATTCTGTAAACCCACATGATA
TTACAGTTGGACCTGTGGCAAAGTCAATTCTACAACAAGCAGGAGTTGAAATGAAATCGG
AATTTCTTGCCACAAAGGCTAAACAGTTTCAACGGTCCCAGTTGGTACCTCGGCCGCTCT
AGAACTAG

Sequence 2188

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCCGGGCAGGTACCCAGGACAAA
TCTCTCCACTTGGAAGGAGATCCCAATCCTTCTGCAGCCCCAACATCCACCTGCGCACCT
AGGAAAATGCCAAAAGGATTTCAATATCCAAACAACCTGGCTTCAGTGAAAGCTCTGAGG
AAGTGCTCAGATCTGGAAAAAGCTATTGCCACCACTGCTCTGATTTTCAGAAATCTTCT
GACTCTGATGGTAACTTGAAAAAGCTATTGCCAAAGATCTGCTGCAAACCCAATTTAGG
AATTCGCAGAGGGACAAGAAACCAAGCCAAATACAGAGAGATCCTTTCTGAACTTGAT
GAGCACACAGAAAAAAGCTAGATTTTGAAGACTTCATGATCTTGCTCTTAAGCATCACT
GTCATGTCAGATCTGCTACAAAATATACGGAATGTAAAAATTATGAAATGAACAGTTTTA
AATATGCTGTATAAAATAATGGCAAAGACAGTGTTATTAATGTTTCCATCTCAAAA
AAAAAAAAAAAAAAAA

Sequence 2189

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAAAGTTGAAAGTCACA
AAACCATAGAAAAGTCTCAGTTTCCTACTGTAGAATTCCTGGCATTCAGTAGTCACAGT
TAACTTGTTCTAGGTTTTTCAGATGCTCTTTTCCAGGACTTCATATGTTTTGATATTTT
TAAAAATCTTTCTTTCAACTTTTTTGATTATAAGCCTTGCTTGCTTCGATTTGGGATTT
AGGCATCGTTGTCTTTATTTCTTTTCAGGGCAATAATCACTTCTATTTTGTACAGTTG
TTACTTGGGTACCTAAAACCCGAAGAACCTTCTGTAAGAAGTGTGGCAAGCATCAGCCTC
ACAAAGTGACACAGTATAAGAAGGGCAAGGATTCTTTGTATGCCCAGGGAAGGAGGCGCT
ATGATCGGAAGCAGAGTGGCTATGGTGGGCAGACAAAGCCAATTTTCCGGAAGAAGGCTA
AAGACCACAAAGAAAGA

Sequence 2190

CCGCGGTGGCGGCCGAGGNACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TGCNANCACANAGGTGAGCAACAAGTTTATTTTGCAGCTAGCAAGGNAACAGGGTAGGGC
ATGGTTNCATGTTTAGGTCAACTTCCTTTGTCGNGGTTGATTGGTTTGTCTTTATGGGGG
GGGGNGGGNNAGNNGAANTCCAATNTGAATCCACAGAAACCAGGGGCTGTANAAACANA
ACCTGANAAGAACGAGCACTCAACCNAGCTNACTNNGGTTCAANNAAAAAATNCCAANA
AGGAAAGCCAA

Sequence 2191

CCGCGGTGGCGGCCGAGGTACAAAGATAAGTCATCTCAGTAAAAGGTCTATTATCTAACT
TGCCAAACTTGTTTACTGAGAGCCCTAAGGAACTAAAACCTGCCATAATGCCGTGCACAGC
TTGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTCTCCTCCCTCCAGTTCCCTCAGCAGGC
CTGGCTGAAGGCCCAGGAGGGANGGANTTTTANACCCCTTTAAANNTNNTTTTCGCNT
TAAGAAGAGNCCCCCGNGGGNGNCNCCCTTTTTTTTGAANCNCCCTTTTCCCCGGGA
ATNAGGGTTTTTTTTTTTTTTNAAAAANTCCCCCNNGGGGGGNGCCNNCNNTNTTTTT
TTTTTTTTTTNGAANCCCCCCCCCCCCCNNGGTTNNNNCNNTCCTTCTTTNACAAAAAAA
AAAAAATTNCCNCCNCCCCCAAAAAAANNNNTTTTTTTTNTCCCNCCCCCNNTTTT
TANAAAAAATAAAAAANTTTTTTTTTTTTTTTTTTTTTT

Sequence 2192

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCCGGGCAGGTACGCGGGGGCCGAGA
GAAGCAGTAGTCAATAAAGAGAGTGCCGTATTTGCGAGATTGGAGCTGAGCTGTGGCTGC
CAGAAGATAGCGAACGAATGGAACTGAAAGTGAAATCAGGAAAAGGTAATGGAAGAAG

TABLE 1
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AAAGCACTGAAAAGAAAAAAGAAGTTGAAAAAAGAAACGGTCACGAGTAAACAGGTGCT
TGCAGATATTGCTAAGCAAGTGGACTTCTGGTTTGGGGATGCAAATCTTCACAAGGATAG
ATTTCTTCGAGAACAGATAGAAAAATCTAGAGATGGATATGTTGATATATCACTACTTGT
GTCTTTTAACAAAATGAAAAAATTGACTACTGATGGGAAGTTAATTGCCAGAGCATTGAG
AAGTTCAGCTGTTGTAGAGCTTGATTTGGAAGGCACCAGAATCCGGAGGAAAAAACCTCT
GGGGGAAAGACCAAGGA

Sequence 2193

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGTGTCCATGGGTCCACAA
AATCCTCTTCAGCTTCTGTGGCATCTGGGCCATGATTACTGGTAGGTGCTGGGTTCCCTG
GAGGACAGTCAGCCTTGTAATCCTCCCCGCGGCAGCTTTGTAGCTCATTTTTATGACAC
CAACATCTTTACTGCAGAAATCAATTTATCCAGGTTGTGGAAGACACTGCAGAGGTGGC
CACTGGTCACGCTGGGCAGTTGAGCTGCTGAGAGTCCCCGCGTACTATCTTCACTCTTT
TTTTTTCAGAAGCCAATGTTCTCTAAATCTGCAGCTTCATTCCACAGCTTTACAGAATCA
TAATCTCTGAATATATTTCCAATGTTATTAATAAATAAAAAATCATACAAGATATATTT
AGCACATTAATACTTAAGAGGTTACAGTATAACTGTCCAGACCTCCAGGTACCTGCCCGG
GC

Sequence 2194

GTGGCGGCCGCCCGCCAGGTACATTTTTAAAGAGTTGTTTTTNGGCCGNGCGCAGTGGCT
CATGCCTGTAATCCAGCACTTNGGGAGGCCGAGGTGGGCGGATCACGAGGTCTGGANTT
TGAGACCATNCTGNCTAACACAGTGAATCCCGTCTCTACTAAAAATACAAAAAATTANCC
AGGCGTGGTGGCTGGCACCTGTAGTCCCAGCTACTTGGGAGGCTGANGCAGGANAATGGC
GTGAACCTGGAAGGAAGAGGTTGCAGTGAGCCAAGATTGCGCCCCTGCACTCCAGCCTGG
GCAACANAGCANGACTCCATCTNANANAAAAAANCAANGAGNNGTTTTCTNA
TGTTCAATTATAGGGCATTACAGTTACATNGNCCGAAGGTCTTACAATAATCACTGGGTA
GCAATANATGCTTCNGGCCACATGATGCTGATTAGTTTNCANTTTTCATNCAGTTGACA
ATATTAACCCCATTNCTCCCTCCCTGCCCAAGGNTCATAAANTNGTGACTGCCTAACAA
CCAAAATTNGGAAGGCCANTCTTNATTTTCACTCAGACTTCTTGGAACCTGAAAGATTA
AACNTTTTGGCTAACCTGGAAATATCTTTTATCTCACTTATAGCNTTNAAGGCCATTG
NATNAAAACNTGATTTCTTGGAAAGGGCCATACCCATAAANTCAAGGGGGGTTTTCTCG
AAAAGTAAANGNTTCCAAATNAANNCCAAACANTTTCAACCCCAAAAAAAAAAAAAA

Sequence 2195

AGGTACACTGAACACCAAGGCTCTCACTCTTGAGTCTAGGGCACCATATATATAAAGGGA
GTTCCGAACTTGTAAGGCAATCCTATTGTTCTAGTCAAATCACACTGAAATCCGGAGG
CCTGGTGTGAGAACCTACNAGCGGACACCGGGCATTTAATATTTTTGCACACCCACACA
GCCAGGGCCAAAGTGGTCAAGGCACTCTCCTAACACAGACAGGATCTTCTGAGTTGCAAT
TCTTTCTGAAGGAACATTTTTCACTTGAAATTCATCAGAAAATTTCTGAGATCTTGTG
AGCGCTGAGGTTTCTGGTTTCATCTAGATCCAAAAACATGTCCAAATCACATCCTAACTT
CCCAAAGTGTTGACTGAGGAGCCAAAGGGTCTGACTATGCAGTCTGGAAAATACCCCGG
CGGCCATGTCTTCAATAAGAGAACAGGTGAGATATCGGAGCTTAAGTGTTCTCCTCTGTT
AGCTGGAACCTCCTTCAAGAAGAGTGTTCAAGCTTGATCCGTCTATACTTTCTGCATAACA
AAGTAATTCAAAAAGCTGCTTGTTGAACCGTGGCAACTGANTACTTGACCCGTACCTTG
CCCCGGGCGGGCCCTNTAAGAACTAGTGGATCCCCCGG

Sequence 2196

CGCCCGGGCAGGTACAGTGGTCCTTTTAGAGTTGGACTTCTAGACTCACCTGTTCTCAC
TCCCTGTTTTAATTCACCCAGCCATGCAATGCCAAATAATAGAATTGCTCCCTACCAGC
TGAACAGGGAGGAGTCTGTGCAGTCTGACACTTGTGTTGAACATGGCTAAATACAATGG
GTATCGCTGAGACTAAGTTGTAGAAATTAACAAATGTGCTGCTTGTTAAATGGCTACA
CTCACTGACTCATTCTTTATTCTATTTTAGTTGGTTGTATCTTGCCTAAGGTGCGTAG
TCCAACCTTTGGTATTACCCTCCTAATAGTCATACTAGTAGTCATACTCCCTGGTGTAGT
GTATTCTCTAAAAGCTTTAAATGTCTGCATGCAGCCAGCCATCAAATAGTGAATGGTCTC
TCTTGGCTGGAATTACCAAACTCAGAGAAAATGTGTATNAGGAGGAACATCATAACC

TABLE 1

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CCATGGANGGAAAAAAGCCCCCAAATGGGTGGGAACTGGATAATAAGCACTNATGCTTT
AAGAATTGGGCACACTTCTCACCTAAGGTGAGCGCATTGNGNCCAGGGGGTGCTTAAATG
CTTACATACCTCCAACCTGGAAATGGNTAAGGGAAGAAGATTGATNCCAATTTNAAAAAAA
AATTTAAANCCANTTTNAAAAAAA

Sequence 2197

CGCCCGGCAGGTACGCGGGGGTGGAGAGAGGCCTCTAGACTTCAGTTTCAGTTTCCTGGC
TCTGGGCAGCAGCAAGAATTCCTCTGCCCCCATCCTACCATTCACTGTCTTGCCGGCAG
CCAGCTGAGAGCAATGGGAAATGGGAGTCCAGCTGTCTCGGTGCCTGCTCAGAAGCTG
GGTTGGTTTATCCAGGAATACCTGAAGCCCTACGAAGAATGTCAGACACTGATCGACGAG
ATGGTGAACACCATCTGTGACGTCTGACAGGAACCCGAACAGTTCCCCCTGGTGCAGGGA
GTGGCCATAGGTGGCTCCTATGGACGGAAAACAGTCTTAAGAGGCAACTCCGATGGTACC
T

Sequence 2198

CCGGGCAGGTACCAAAATTGTAAGAAGAAGCTTGGGAAGCTGCCACCTCAGTATGCCCTG
GAGCTCCTGACGGTCTATGCTTGGGAGCGAGGGAGCATGAAAACACATTTCAACACAGCC
CAGGGATTTCGGACGGCTTGAATTAGTCATAAACTACCAGCAACTCTGCATCTACTGGA
CAAAGTATTATGACTTTAAAAACCCATTATTGAAAAGTACACAGGAGGCAAAGTGTTTC
ACATTATAGACTTCACTTCCAACCTCCTTGAATGTTCAATTTCTTTGGCTTACAGGAGAGA
CTAGACAGGAAGGCCAGGCAATGCTTAGGCAACTAAAATGAGGTTGGGGGTAAATGCTAAC
GTCACCCTCACAGGGATGGCCACGGGGAAGTATTTCGCAAGCTGGTTTTCTAGGCCTGT
TAGCTGGAAGCATGGTGAGCACCAATTTCTGGGACGCTCAAGGCCGTGTCGGGGCTTCAA
GTCATCTTCACCACACCANGTACCTTNGGNCGNNTCTANNACTANTGGGATNCCCCCGG
GCTGTAGGGAATTTNANTTTNAAGCCTTATTCGATTACCCGTTGANCCTCTGGGGGGGG
GGNC

Sequence 2199

CCGCGGTGGCGGCCCGAGGTACAAGATNGNCATCTCAGTAAAAGGTCTATTATCTAACTN
GCCAACTTGTTNACTGAGAGCCCTANGGAACATAAACTGCCATAATGCCGTGCACAGCT
TGAAAAGCAATTAGAGTAAGCANGATTAGTTTTCTCCCTTNCAGNCTNAGNAGGCCTG
GCTGAAGGCCANGANGGAAGGAANTNTANNANCCANCANTAAAAATAGCNATATGCAAT
NNNAAGAATGCCATCCCATGGAGCACACCA

Sequence 2200

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCGGCAGGTACACAATTTTTAGAAT
AGTTGATGTCTTTAAGATGGATATTTTACAATTTAGTAAAAAATACAACATGAAGCT
GCTGCTGTCACAGATCACTGTAGTAAAAAGATATAAATGCAATACCATGTCGTAGAACAA
TATATATATCCTCTGATATTTTACAACTTTGTACTGTGTCCAACAGCTGAAGGAATTTG
AGGGGAAGACTTTAGTGTGAGTCACCAAAGAAGGCCTGGAAGTTCCAGAGGATGAAGAAG
AGAAAAAGAAGCAGGAAGAGAAAAAACAAGTTTGAGAACCTCTGCAAAATCATGAAAG
ACATATTGGAGAAAAAAGTTGA

Sequence 2201

GCTCCACCGTTTTGGCNCNCCGAGGCCCTTGTCTCTTCTCAGTGAAGTAAAACAATTC
CAGGATCAGAAGAGAAGCCATTTTGACATCCTCGATAAACTGGGGATNNGCTGNANTTC
TGTCTGTTACGAAGTGGTTGAAAAACAATTTGAGATCCAGAAGTCTTGATGGGTTTAC
CATCCAGGTGTTTACAAAAAATCAGAGAATCTCTTTCGAGGTGCTGGCCGCTTCAACGC
TCTGAGTAAGCATTGCTGGGTGTGAGGAGAGAAAAGCCAAAGAAGCGGGTGCCAGACAGC
TCTGTGCAACCTCTAGGCCATGAGTGGGATAGATACCACTGCTGCTTTAAAAAATGGGAG
ACCATAGACCCTCAGGAGAAAAGAATCCCTTCTACCCTGGACTCGCTCTCTTCTCTGGAA
CTAATTCTCCCCATACCCTGATTGTCTTTGGAGAAAATGTTCTGGATTCTAGAATCTA
AGGCAGAGCCTTTTAAGCCATACTGTACCTGCCCG

Sequence 2202

AGGTACAGACAGGGTTTCTTCATGTTGGTCAGGCTGGACTCGAACTCCTGGTCTCAACTG
CCTCAGCCTCCCAAAGTGCTGGATTATAGGCATGAGATACCGTGCCTGGCCTCCATCACT

GATTCTATGTATGCACATGACTCCTTTTTTACTTTTACTTAGGAGGCTTAAACACAATT
ATTCAATCAATATAATTATAAAGCAGAGTCTTTGTTAATTTCTGAAGTTGGTAAAAACAT
TTTTTATATTTTATCTATAGCTCATTAAATTTAGGTATCAAAAATGTGTTTTAGTTAGGT
AGCCCAAGCTGCCAATTGTTTGATATCATCATCCTCTCTTCTGCCCTCTGGGAAGATGC
TGCTCTGGGATCGAC

CCGGGCAGGTACTCCAAAGATTGAGTTTACTCAGTCATCCAGCAGAGAATGAAAGTC
AAATTTCTGAATTGCTATGTGCTGGGTTTCATCCATCCGACATTGAAGTTGACTTACT
GAAGAATGGAGAGAGAATTGAAAAAGTGGAGCATTGAGACTTGCTTTTTCAGCAAGGACTG
GTCTTTCTATCTCTGTACACTGTATGCATCATCAGTCCAAAGTTTTTCAGAGTTCTATG
TGACTGGTTGAGGAAACACTGCTTGAATTTCCCATAGCCTCTGCAGCGGCATCACTGTC
TATGAACTCTTGAAGAAGCTCTTTGTATTCAGGTATAGATATGTCGGAATTGATGGTCTT
TTCAACCATGTCCTCCAGGAGTTTGAGCCAGAATCTGCATAGCAGTGAGGAGGAGGGC
CGCCAGCATGAGGACCATCAGCAGCTTCATGGCGAGGCGGCTGCTGTCTGTGTTTCAGTCG
TGTGTGGCAGGGATCAAGGAAGTTGCTGTCCCCGCGTACCTN

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGCCGAGGTACTGGTTGNCAGGATTCAA
GCCGAATGGCTTGCCTNANAGGGNCAATGGCGTTCTGAGATGGTGGCCA

ACACTACTATAGGGTGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCTTGGTTTAT
CAATGGGACGTTCCAGCAATCCACACAAGAGCTCTTTATCCCCAACATCACTGTGAATAA
TAGCGGATCCTATATGTGCCAAGCCATAACTCAGCCACTGGCCTCAATAGGACCACAGT
CACGATGATCACAGTCTCTGGAAGTGCTCCTGTCCTCTCAGCTGTGGCCACCGTCGGCAT
CACGATTGGAGTGCTGGCCAGGGTGGCTCTGATATAGCAGCCCTGGTGTATTTTCGATAT
TTCAGGAAGACTGGCAGATTGGACCAGACCCTGAATTCCTAGCTCCTNCAATCCCATT
TTATCCCATGGAACNCTTAAACAANGGGTTGGTTTTGGTTCCTGAAGCCCTTTTTTGT
GGGGAATGGGGCACCTTAATGGAAAATTTAAAGGGGAAAAANCCCTCAGGCCTGNNGGGG
NGGGCCCCCTTACAGCCTTTTNCCTTAAGTAAAGGAAAGGAAATTTGNAACCATTGG
GGGAGAAAATGGACNACTTNCNACTNTTGGACNGGTTTTTTTCCAAAANTGTNAAAACAA
GAATTCCTTTATTAATGGAAANGGGGTTTTACCCCTTTTAAATT

CCACTATAGGTTTATGGAAGTCCCGCGGNGGCCTCACTTTTACCTTCTGGAANCCGC
CCACCACTTTCAAGCTCACTATTGAATCCACGCCGTTCAATGTCACAGAGGGGAAGGAGG
TGCTTCTACTTGTCCACAATCTGCCCCAGCATCTTTTTGGCTACAGCTGGTACAGCTTTC
TTCGTCCTCCATGCTAAGAGATGTAAAAGCTTAAGGGTCAAACAATACCAATTGTATAGG
CTTCAAAAACCATCTAAGTTAGGGCATTCTNTAGTTTTAGCTAAGATACACCTGGAACAC
TGACAAGTCATCACTTACATAGAATAATGTGAAGTAAATTTTTGAAAAATAAATTTAG
TGGAACAATCCTGAAGGATAACACCAGAAGAATAGCAGGTTACCAGTAAGGGGTCAGCCA
ATTTGTTCCAGTCACTTTTGAATCCATGTTCTATAATCTAAAAATTATTCTTTCCCTA
AGCTGAGAGCTTCCTATCATGTCAAGTATCTATGNTATGAAG

[illegible]

GGCGAATTGNGCTCNTTCGCGGTGGCGGCCGAGGTACTGAGAGAGGTGGTGGACATACT

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TGGGCGTAAGANACTGAGAAATCAGGTAGCTTCACTGGCTGGTAGGGGACTTTTGCTTTT

TABLE 1
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GAAACGTCACAGGCTGTCTTCCTTTGGATGTAATGGGACGTCCTGATGACCCA

Sequence 2214

ACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTT
TTTTTTTTTTTTTTTTTTNATTAGGGTTGAAAAGGTAAGTCCTATATTANATACATAGGG
GCTGGTAGTCTTATCCTCTNTATAAATACNCACTTTTTGNCAGTCCCCCTCCCTGCCAT
GCAGAGTCCCCATGGCTGAATCTCCCTATGTCTCCAAGNGNGCGTCACTTGCTGTCTNT
GGGCTGGGTCCCATGNGCTGNGCCACAGTCTT

Sequence 2215

CCGGGCAGGTACAATACACTAGAAACCAACATAATGTATTTNTTTAAACCTGTGTGAAA
AAATAAATGTTCCACCAGTAGGGATAGGGGAAAAGTAACCNAAAGAGAGAAANNGGAGAAA
GGGAATGCTGGTTTATCTTTGTANGATTGTAATTCGAATGNGAGAAATTTGCAGTATT
TAGCCACTTATTAAGGGAATTTTTTTTTTTGTAAGANTGGAAGACCTGANACNTCTGTT
CAAAATGGCTTTTCANTGGAACCTTGNGTNTGGAGACCGTTAGNGAAAAGGCANACA
AAAACCGTGGGTAAACCCTGGTGGACCTAAAGGGGCNCTGNGTGCCAAGGGNACCTTGGGG
NAAATTGGTCCATTNGATTANTAGGAATGGGTGGGGGTTTTTTTTCCCCCCCCCTTTTNA
GNAAANTGGTNTTNGGATTATTTTAAAGNTGGANTTTTAAAAAACACCNTTTTTTTTTTA
AACTCCCGGAAA

Sequence 2216

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTTTTATACATTAAATATTTATTAA
TGTTTTGGGAATGTTGTGTATCAGTAATTATACCTAGTAAAAAGAAAGATCCACATCCAA
ATTTTCCAGAAAACCGGGTGGCCAGGTNNGGGNGGAAGAAGAGCATTTTAAAAACCAAAA
CCAAAACAAGGGAAAAGCTAAAAAGGAGTTTNTTCCAAATANTCCTGAATTCATTAGGAG
GGTTGGAATTNACATTTTTTCAGGNCTNTATTCCCCCAAAGTTGAAATTTTTTAAGGGG
ACCTTGANAAAGNCTTTATTACCCCATNTGAAAAACAATGCCTGCCAATGGATTTACC
CTNTTTTTCACGGTTCTTCCAGGGTCCCAANTNACCGNTTGTCTGGTNAATCCCTTT
TGGGCCCTTTTTTTTTT

Sequence 2217

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAGAGCTGTGTGCATGCT
GAGCAACACCACAGCCATTGCTGAGGCCTGGGCTCGCTGGACCACAAGTTTGACCTGAT
GTATGCCAAGCGTGCTTTGTTCACTGGTACGGGAAGGATTCTGCCAGGGTGATTCTGG
GGGTCCGCTGGTATGTGGAGACCACCTCCGAGGCCTTGTGTCATGGGGTAACATCCCCTG
TGGATCAAAGGAGAAGCCAGGAGTCTACACCAACGTCTGCAGATACACGAACTGGATCCA
AAAAACCATTCAGGCCAAGTGACCCTGACATGTGACATCTACCTCCCGACCTACCACCCC
ACTGGCTGGTTCCAGGAACGTCTCTACCTAGACCTTGCTCCCTCCTCTCCTGCCAG
CTCTGACCCTGATGCTTAATAAACGCAGCNACGTGGAGGGTCTGATTCTCCCTTGGGT

Sequence 2218

CCGCGGTGGCGGCCGCCCGGGCAAGGTACTTTTTTTTTTTTTTTTTTTGGGATGGAGT
CTTGCTCTGTTGCCAGGCTGGAGTGCAGGGGCGCAATCTTGGCTCACTGCAACCTCTTC
CTTCCAGGTTACAGCCATTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGACTACAGGTGCC
AGCCACCACGCCTGGCTAATTTTTTGTATTTTGTAGTAGAGACGGGATTTCACTGTGTTAG
CCAGGATGGTCTCAAACCTCCAGACCTCNTGATCCGNCCACCTTGGCCTCCAAAAGNGCTG
GGGATTACANGGCATGAGCCANTGGGCCCGGCCAAAAAANAANTTTTTTAAAAANGGC
NCCNNGCCCCCTTTTAAAAATTGGGGNGNCCCNNGGGGGNGGGGGGAAATNNAAAAAA
TTNTNNCCCCCCCC

Sequence 2219

GGCGGCCGAGGTGGGCCCACTGGGACTGAGATACGGGCCAGACTCCTACGGGAGGCACGC
ATGTAAGGAATTTTCCACAATGAGCGAAAGCTTGATGGAGCGACACAGCGTGACAGGATGA
AGTTCTTCGGAATGTAACCTGCTGTTATAAGGGAAAAAANAAAAAAAAAAAAAAAAAN
GTACCTGCCCCG

Sequence 2220

CGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTT

TABLE 1
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TTNTNNTTNTNTTTTTTTTTTCCCGGCCATATTCCATTNTTNNANAACCTGAATTG
CNCTGCCATCCACAAAGGCTNGCNCGGTTTTATCCACATTAATACTGTTNGGAGCN
CCAGGACTATTTTATTATTGCTTTTGTNGGGAACAACCTGATCTAACTGCATAAATCTTTT
TCCTTGACATTACATGAGTNTTGGNGTTTCANCCCTTTTGTCTTTAAGNGGAANAGGC
NAATTTTCNGGAAAAANANGGGGGANCCCTTTTNCCTTTTACCCCAAAANTCCNAANGGNA
AAANCCTTNTTTTTTTTTTAAANTTTTTTCCCCNNNTNCCCAAAAAANNGNTTTTTT
TTTTTTTTTTTTNTTGTGNGGGGGNGGGGNGGGGNANAAAAANANNCNNNTTTTTTN
NNNNNTNTTTTTTTTTTANAAAAAANNNNNNNNNNNNNNNNNNNNNNGGNGNNNTT
TTNNNNNANAAAAATNNATNNNNNTTTTTTTTTTTTTTTTTT

Sequence 2221

CACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTCTTTGT
TTTGGCACACTTTTCTTGACAAACAGCCAGTGTTCTCAACACATAAATACTAGTCCACGT
TAACAACAATAGCATATGAGACCGCTCTCCGTAAAGATGCCAGATTGGATGCAAATGGAC
TGGAATAACCTTGGAGGGTTTCACAAAAATAAGACAAAGGGCAAAGGAACCTTGCCAAAG
GAGATGGAGAGCAATTCTTTAAAGTTAGTGGGAGGGAGGAAGCAAAGAGCTCATAAATAC
AAGCCTNTTAAAAATGGGACGCATTTGCCTCGCGCTACTGGGGTGTCTGCAGCTCAGCTT
GGTGCCCCACACAGGACACCG

Sequence 2222

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGAAGTCTCTACTGAGGAAAGC
TATGAGGATACTCTGTTTCGTAAAGCTCCCGGTGAATTTGTTCCACAGACTCGGAAGAAAG
GTTGGATAAGAGTTCACTGGAGATTGACAAGTACCTGGAGGAGCCCTCACCCAAGTGCG
CATCTTAACGGCATTGGTGGAAAGCTGGGGTCAGAAAAGAGAAATGACCATTGGAGGGGC
GGGGCCTCCTAGAAGAACCTTCTTAGACAATGGGGGGAGGATGGGACTTTGTTTTTCCA
AGAATAAACTTCAACTCCTGT

Sequence 2223

CGAGGTACTTCCCACCACAGTGTTGAAAGGGAGAGCAAAGTCTTATGGATAAACCCCTCCT
TTCTTTTGGGGACACATGGCTCTCACTTGAGAAGCTCACCTGTGCTGAATGTCCACATGG
TCACTAAACATGTTATCCTTAAACCCCCGATGCCTGAGTTGAAAGGGCTCTCTTTATTA
GGTTTTCATGGGAACATGAGGCAGCAAATCTATTGCTAAGACTTTACCAGGCTCAAATCA
TCTGAGGCTGATAGATATTTGACTTGGTAAGACTTAAGTAAGGCTCTGGCTCCAGGGGC
ATAAGCAACAGTTTCTTGAATGTGCCATCTGAGAAGGGAGACCCAGGTTATGAAGTTTTCT
CTTTGAACACATTTGGTCTTTTCTCAAAGTTCTCGCTTGCTAGACTGTTAGCTCTTTGAG
GACAGGGACTATGTCTTATCAATCACTATTATTTTCTGTTACCTAGCATGGGACAAGTA
CCACCTGCTGGGGATCACTCTTAGGATCACCCCTCCATCCACAATTTATCCACAAGCC
AAGAACAAGCCCTTCATGTTCTCCAGCAGTGCTCGCTTTTCTAC

Sequence 2224

TCACTNTAGGGCGAATTGGAGCTCCCCGNGGTGGCGGCCGCCCGGGCAGGNACTTTNTT
TTTTTTTTTTTTTNCCTTTTTTTTTTTTTTTTTTTTGGCCTTTTTTAATATCTTTA
TTTGACAAAATAAAAGTCAGCAACCTATCTCGATTTCCAATTTTTGTGGTGTGTTGAAAT
TCCAATTGANACCTAAAGCATAGCTCTGGCCTTGGAGAGATTCCAGGAGAGTCANAGCC
CANAAGGGAGCAGGATCCAGGAGGCCCTCATNTCCAGCACTCCAGCTGAGCCAGCCGGG
TTATGGAACATCACTGAGCAATTAATAATTATCAACAGACAAAAAAGTTTATTGAATA
CAAAACTCAAAGGCATCAACAGTCCTGGGCCCAAGAGATCCATGGCAGGA

Sequence 2225

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGGGCTCTTTCAGGTCCCCCT
TCCTCTGCAGACTCAGCCTCCAGGCTGTTTAGCTCTCCAGATAGCTGCCCTGCCACGC
AGGCCAGGAGTCTTCACTCAGGCACCAGGCCTGGTCCAGGAGGAGCTGTGGCACAGTC
GTGGTTCAAGTGTCCACATGCACCTGTTAGTCCCTGAGAGGTGGTGGGAATGGCTGCTTC
ATTCTCGAGGATGCCCGGGCCCCACCTGGGCTTGTCTTTCTGTTTAGAGGGAAGTGTA
CATATCTGCCATGAGGAACATAAATTCATGTAAGCCATTTTCTCTTAAACAAAAACAAA
CTTTCTAAGTACAATTTGTTACAAATAACGCAGACTTCAAAAAACAAAAAATNACAACCC

TABLE 1
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AAACAAACCAAAATTTAAATGATCAGAATTGGCAAGCACAAAGAAAACGCCCTNTCCTGA
CTTNTATTGTGGGCAGTTCTGAACGCCCCCAGAAAATTTGTGCCAAAGAGTTTTAGAAAA
NTAAATATTCCAATAAAAGTAAACACTATACNCCACCAAAACAGGC

Sequence 2226

GGCGAATTNGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTT
TTTTTTTTCTAACTTTATATATAATACTTTATTTTATACAATTCAGTATATCATGTTAAC
ATATTTCACTTTTAATTTTATGATATGTGTGACATATTTTAATTTTATGGATTCAATTA
TACTATCATAATTTTTTAAAGTTTGTATCTTTCATTAATAAGGAGGTTCTTATTAATG
GATTTTTTTTCTGTAGCTTNTGAGAACACATTTTATAGATNCCCGGCTTNTAGTTATACC
TGAAGCTCCACAGTGANACATGTTTTGGCCAACCTTGTTTTATCGGNGTATGAAATTTG
NGCTAATAGGAGGGATCCAATTGTCATTACATTAGAAAATAATGGGAAA

Sequence 2227

CCGGGCAGGTACGCGGGGCCCTTCTAGAGGCAGGCAGAGGGAAGAGAAAGGGTCTGTTGT
TTTTCTCTCCTGTTTCTCGCTCCCTCTCTGCTGATCACAAAGCTGCTGACCGGGTCAGAA
AGTCCTGATGAAAATCCACCAGCGCTGGGCAGGCCCTCCTCCTCCAGGGAGCTTGTCTT
TGCCTAATTTTTCTTCGTCTGATGAGAACAAGAGAGAGAGAAGAAAAGAAAACC
ACAAACTTCCTTTGAAAACAGCTTGTAGTCAGGGCCCGGAGCGCATGCCATAGATACCGG
CGACTCAGGAATCCTGAAGACTCTCTGAGCGACCTGGAGCACCTTGGGCTGTGTCCCTGC
CTGCCTTACCCTCCTCCAGTGCCCCCAGTACTAAGGAATCTTCTGTTTTGGGGTT

Sequence 2228

CCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGACACAAGACATCATCTTGAAGGAAGG
ATGGCTTTGGCCAGACCAAGACCAAGACTTGGAGACCTGATTGAGATTTCTCGCTTTGGC
TATGCACACTGGGCCATCTACGTGGGAGATGGCTATGTGGTCCATCTGGCTCCGGCAAGT
GAAATTGCTGGAGCTGGTGCGGCCAGTGTCTGTCTGCCCTGACCAACAAAGCCATAGTG
AAGAAGGAACGTGTGTGTGGTGGCTGGGGGAGACAACCTACAGGGTCAATAACAAGCAC
GATGACAGATACACCACTGCCTTCCAACAAAATCGTCAAGCGGGCAGAGGAGTTGGTG
GGGCAGGGAGTTGCCTTATTC

Sequence 2229

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCCAGGTACTANAAGATATT
GATCCTAGTCAATTAGGCATTGTAGACTGTNATGACCACTTAATAAAAAATNTGGACCT
GANGCTCAGGATCCAG

Sequence 2230

NTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGNGGTACCTGCAGNNCTNNTACACCT
ACCTCTCTNTGGGCTTNTATTTGACCGNGATGATGTGGCTCTGGAAGGCGTGAGCCACT
TTTTCCGCGAATTGNNCGAGGAGAAGCCGCAGAGGGCTACGAGCAGTNTCCTGAAGATGC
AAAACCAGCAGTGGC

Sequence 2231

TTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGTTTCAGAGTTTC
ATAAGACACAGTCTCAACAGGAGTTTTTTTAAATAATGCTCTATCTCTAGTTCCAGAAAC
TGAATTCGAAGAAGCTACACTGAGGATAATTCAGCTCTGATATTGTGATTACTGTGATGT
TCTTTCATTACATACAGTAAGTATCTGCCAATACGTAACCTACCGAGATCTATTGCTTCT
ACATAATTAGACAAGCTCCTTACACATATGGGCCCATGCCCGGCACATAGCAGGCACCTTA
ACAAGGGGTTGCTTAACCTACNGGAAGGAATAATATAATTNGCCTTTCCNTTTTTAACTGN
TTTACCCTTTTTCTATACNTTGNTATTTTTGGAAAACNACATGCTTGCAAAACTAAAAA
TCTAACATGCATTACTAATTTATAAAAGATCCTTCAGTATTTTTCAAAAAGGGAAAAAA
TNATTAAAACCAATCCCCCAAT

Sequence 2232

TACTTAGGGCGAATTGGAGCTCACCGCGGTGGCGGCCGCAGAGCTTAAGAGACCTTCAG
CTTCTCGGTGTAGGTCACCAAGTCATGTACGCTCACAACCTTTTCGCTCCCTCTAGGTC
AGGCACCGCATCCAAGTTAAGCAACCGACGCGGCTCCTTGGTGTCCCAACAAGGTCTAG
TAGAAAAGCAACTTTATAATTGTTTTACAGATTTGATTAAGAGCCAACCTGAGTAGTGGG

CCTTGTGCTAGGAGCTCCGAGGGCCCAAGGACCCCATGGAACCAAGATTAGTCGCTGACCT
CTAGGAGCTCACAGGTGAGTGAAGTCCCCCGCGTACCTCGGCCGCTCTAGAAGTGGTGG
GATCCCCCGGGGCTGCAGGAATTCGATATCAAGCTTATCGAATACCCGTCGACCTTCGA
GGGGGGGGCCCCGGTACCCAAGCTTTT
Sequence 2233
CCGGGCAGGTACCGNTGTGTCCGGGTGGGTGGTCAGAATGCCGNGCTCCAGGTGTTTACA
GCTGCTTCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGCC
TGTGCCCAACTGNGTTTTCCCAAGCTATGTGAGTTCANATAACCTCANAGTGAGCTCGCTG
GAGGGGCAGTTCGGGAGGAGTTTGTGTCCATCGATCACCTCTGCCAGATGACAAGGTG
ACT
Sequence 2234
ATAGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATTGGCACGTCA
CGATGTCTTGAGTTTCATTACTAGGTGGCAGCCTGCATCGTTCCACTGCAAATGACTGA
AATCCCAAAACACACAATGAGGCTGGCTCAGGTTTGACTCTATCTTGAAAAAATAGGA
AACTTTCATTTATGGAATAGTTTTGAATAACCGTGGATATCACAGGTCCATTGACCTGAG
CATTTCCATTTTTGGAACGGGTAG
Sequence 2235
TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGTCATCACACGTGACAGGATGTCA
ATGACAATCCTCCAGAGTTTACTGCCATGACGTTTTATGGTGAAGTTCCTGAGAACAGGG
TAGACATCATAGTAGCTAATCTAACTGCGACCGATAAGGATCAACCCCATACACCAGCCT
GGAACGCAGTGACCT
Sequence 2236
TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAATATGAACCT
GTGCTTTGCAGCAGGCCAACTTGTAAAGCTGTTCTCAACCCACTTTGTCAGGTTGATTAT
CGAGCAAACTTTGGGCCTGTAATTTTCTGTTTTCAAAGAAATCAGTTTCCTCCAGCTTA
TGGAGGCATATCTGAGGTGAATCAACCTGCCGAATTGATGCCCCAGTTTTCTACAATTGA
GTACGCGGNGACAGCGGNTTCCTTGATCCTTGCCACCCGCG
Sequence 2237
GCGNAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACNCNGGGCCCTGTGCTG
TCTGCACCGAGGAGAGCGGCCTGNCGGAAGNNGGCCACCATATCTGAAAATACAGTCTA
TGNTTNGAAGCGCANAAGGGAATAAACANTTAANGACTCCCCNNGGGACCTGNAGGATGG
NCTTTTCCATGGGGGCCGGAGCNGCAGCTTACAATGNAAAATNACANACTGGNGCTNTTG
GAGAAAATATANTTGGCATAATTCCTTAAACACNATGACTTCAAAATTTTAA
Sequence 2238
CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTCCTGA
AATGGCTTCTGCAGAGATGGACCTATGCCGGGGACAGCACACCTGGACTCAAAAGGCAGG
GATTGGATAGGAAGAGGAATAAAATATAAAATCAGAGAACTGCTGAAATTCTGTGACCC
CTTTTTAGTTAAAAAANGAAATAAAAGTACCT
Sequence 2239
GGTACATTTTTAAAGAGGTTGTTTTTGGCCGGGCGCAGTGGCTCATGCCTGTAATCCCA
GCACTTTGGGAGGCCGAGGTGGGCGGATCACGAGGTCTGGAGTTTGAGACCATCCTGGCT
AACACAGTGAAATCCCGTCTCTACTAAAAATACAAAAAATTAGCCAGGCGTGGTGGCTGG
CACCTGTAGTCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATGGCGTGAACCTGGAAGGA
AGAGGTTGCAGTGAGCCAAGATTGCGCCCCTGCACTCCAGCCTGGGCAACAGAGCAAGAC
TCCATCCCAAAAAAAAAAANTTNAAAAAAAAANNNGGTACCTTGCCCGGGGCGGCCGCTC
TANAACCTAAGNGGGGATCCCCCGGGCTTGNAAGGGAATTCNATATTCAAAGCTTTA
TTCGAATNCCGTTGACCTTCGAGGGGGGGGGG
Sequence 2240
CGGTGGCGGCCGCCCGGGCAGGTACNTGGGGAAGGCGCNCCTGCGTCAGCTTGACAGCA
GAAGCAGGAGGAGAGCTGGCGGGAAGACATGCACCCCTTGAAGACCCAGAGAGAGGCCGT
CTGTCTACCGCGTAGCAGTTACATCAGACTGAGACACTTCTGTTTACAGGAGACTATAA

TABLE 1
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AATTCCTGCCCCGTGCTCATTTGGGGCTGACGCCATTTTAGACCTCAGCCCATCTGCACC
CAGGCGCTCACTGAAACAGTGTGTTGCTCCACACCGCCTTGTTTTGCTTGNTGGCGCGCT
CTCAGGGTTCCGACCAATCCAAGAGCCTTGACAGAAAGCATTAACTGCTTTTTNTCTTTGG
CAAGAGTTTTCTTTGCTCTGATCTTGGAGACCATCCCTCTGCCTAGGGGGAAAAACATAN
GGGAATACAGA

Sequence 2241

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACACCATGTTAAGA
GATAGCAATGCAACCGCAGCCAAGATGTCTTTAGATGTAATGATTGAACTCTACAGAAGG
AACATCTGGAATGATGCAAAAACTGTCAATGTTATCACAACCTGCATGTTTCTTAAGGTC
ACCAAGATATTAGTTGCCGCTTTGACATTCTTTCTTGGGAAAGATGAAGATGAAAAACAG
GACAGTGACTCCGAATCTGAGGATGATGGACCAACAGCAAGAGACCTGCTAGTACCCTCT
CTTCCAGCACCCAGGCCAGTATTGAGATCGATTCTCTCTATGAAGGAATCGACTTCTATA
CCTCCATTACCCGTGCCCCGATTGAAGAACTGAATGCTGACCTGTTCCGTGGCACCCCTG
GACCCAGTAGA

Sequence 2242

TAGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACAGTGGCGTGGGCC
TGCTTTCCCGCCAGTGCCCACTCAAAGTTTCTTACGGCATAGGCCGATGAGGAGCATGAT
CAGGAAGGCCGGGTGATTGTGGCTGAATTTGACTCGTTTGCTGGTAACAGCATATGTA
CCCTTGTCCTCTTCTCAGTGACTTAAACAATTCCAGGATCAGAAGAGAAGCCAACGTG
ACATCCTCGATAAACTGGGGATAAGCTGAAGTTCTGTCTGTTACCGAAGTGGTTGAAA
AACAATTCGAGATCCAGAAGTCCCTTGATGGGTTACCATCAGGTGTTCAAAAAA

Sequence 2243

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGNCAGGTACCTTCACCTG
CTTTGGAGAAATCCTGAATGTGTCCCAGAAATGAGACGAGAAGTCTTCTCCTGATCAAA
GGTCTTTTCTTGATTGAAGGGTTTCGTGGTTTCACAGGCTTCAAGGAAAGAAGCCATGGAC
CTCAGTGGTGAGTGTTACAGNTCCATTAGAGAAACATGCAGACCCCCCGCGTACCTN

Sequence 2244

GCCGCCGGGCAGGTACTTTCCCTTCCCTAGAAAAGCNGACTNGNCGCTAACGGTGAAGG
ACCANGGCAGGCGTCCCTGAGTGGTCTGACACCTTTGAAACGTGAGTGAATAATCAGAGA
GGTGTCCCTGNAATGATAAACACCAAGGAAAGGCTGCCTTCCAGTCTGNGACCAAGCGC
CAGAGTTTTGGGTCCACGGATAAACGTGTCTCGTTTGTCTCTACCAGAAAATGAANGGA
ATTTGAAATTAAGAGAAGGGAGAGATTAAGAAAAAAAAAAAAAAAAAGTACCTCG
GCCG

Sequence 2245

AGGTACGCTTCGACCCACGCGTCCGAGAAAAGACTATTAATTATTTGTGCCTTTAAAGGT
TAATTATTTCAACCTTAAAGAAATCTTATAAGAACCCATTAATAAAAAAGAATGCAAATA
TATTGCCCAAAAAAATACACAAATTATTGTCTTTCATATAGGGGAGGAAATAAATATGTT
TCATCTGAATTGTCTGAAGTAAGTCATGAATGGAGTCAGGGTAAAAAAAAAAAAAAAAAA
AGTGCGGCCACCTGCCCG

Sequence 2246

CCGGGCAGGTCAAGCTTCGACCCACGCGTCCGCGAATACTGCATACTGTTTAAGGTAGTA
TATAAGTTTATGAGAGAAGTGGAGAGCTTTCTTCTTGAAAAGTCGGTATTTGTTGAGAT
ACCATTTGCCTCACAGAGAGGTGTTCCCACTCCCATCCCATTTGCCAGATAATAAATAT
TTTGAGAAAAGTGACCTAAACAGCTGAAATCTTAGGTGCATCTGTCTGCAGACCTCCTT
AAGCAGGCTGTATCTTACAATTCCCTTACTGCACTGGGTAAGTGTTAACTTAGTTTTTGT
TGTTTGCTCTTTTGCTTTAAATATTCTCCAAATTACACCT

Sequence 2247

AGGTGTACAAGCTTCNACCCACGCGTCCGAAAGATTCTTGGNTGAGCATGGTGGCTCATG
TCTGTCATCTCANCAATTTGGGAGGCAAGGGCAGGAGGATAGTTTGAGCCCATGAGTTTG
AGACCAGCCTGGACAACATAGTGAGACCCCATCTCAGCAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAGTGCGGCCGCCGCACTTTTTTTTTTTTTTTTTTGTCTCAATANAAGTNTGG

AATAATTCCAGGTAATTTAAAGCATNTTTTNAATTGGTGTAAAGCTGCTCCATGAAGTCA
NCTNGCTCCTCTAATTGGGATGGTTNTTNATNACACGGCATGTTNTAAGAGTTTGATGAC
AGGANCATNAAGTGTNNGGNCCCAGNACCCCTTCTGNGCGGACTTNTNGGCATCCTCCCT
TCAAANCTCAATNCTTTTANAGGGGCCCTGAGGAAAGTNNTTTATTTAAAGGGNTNTTTG
CAAAATTTTG

AGGTCAC(TTTTTTTTTTTTTT)AAAATAATTCTTTAATTATTGATGCTTTGAATAAN
AAGTCCATTTTACTAAATTTAGTATAAATTATCGGACGCGTGGGTGGAAGCTTGACCTGC
CCG

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTA CTCACTGACACGTTTCTCTTGACA
CTGAGATGGTGCAGAAACAAAACACCGTTCTTGCTGGATGAAGCAAGAGTTCCACATAAAA
GAGCTTTATAAAATGTCTATGAAGGAGAATTGATAATATCAGAAGAGCTCCAGCACTTCA
ATTGAATATAATCCTCTATTATTCTTTTCTTGATTTAATTTCTGTAGCTCCCGAAAACCT
ACTTCAATCTTGTTGAGCTCAGAATAAACAGATATCTAAAGAAAAGAGTTTCAGAGTAAC
TTTTACCATAATGTCTACATAGAAACAAATCTTCCAAGAGTAAGCTATTTAAGGACAAAT
TTTAAGAATAATTGTAATTCAGGTGATACTTGGGTTTTTGTACAAGCTTCGACCCACGCG
TCCGACCTGCCCG

CCGGGCAGGTCAAGCTTCGACCCACGCGTCCGATAATTTATACTAAATTTAGTAAAATGG
ACTTCTTATTCAAAGCATCAATAATTAAGAATTATTTAAAAAAAAAAAAAAAAAAAAA
AAAGTGACCT

TGAGCTAACTCACATTAATTGCCGTTGCGCTCACNTGCCCGCTTTCCAGACGGGGNAAAC
 CTGTCGTGCCAGCCTGCATTAAATGGAATCGGCTNAACGCGCGGGGTAGGAGGCGAGTT
 ANGCCGATTGGGCCGCTCTTCCGNTTTCCTCCGCTCACTGGACTTCGCTNGCCGCTTCG
 GGTCCGTNTCGGGCTGCGGCCGAGGCGGTTATCAGCTTNACTCAAAGGCCCGGGTAATAC
 GGGTTATCCACCAGAAAATCAAGGGGGATAAACGGCAGGGAAAAGAAACATGTGGAGGCA
 AAAAGGCCAGCAAAAAGGCCAGGGGAACCCGTAAAAAGGCCCGTTGCCTGGGCGGTTT
 TTTCATTAGGCTTCCCGCCCCCCTGGACGAAGCATTCAAAAAATCCGACNGCTTCA
 AAGTTNAGAAGGTGGGCGAAAACCCCGAACAAGGGAATAATTAAAGGANNCCAGGGCGT
 TTTCCC

AGGTCCTTCGACCCACGCGTCCGATTTTACTCTGTGTATTCGTGGTGGTGGGTTATAGTNT
ACCAAGTTGTCCAAAATGGATAATTCATGTGAGATAGGCAAGANCAAGNGTTGTATCCCA
ATACCATTTGGTGA AAAAGTTGAAC TTCANAAAGGATAAGTANTTTGCCAAGATCACCTG
NCAACCTGCATAGTCAAATTTGAGATGGAACCTCAGCTACTCCAATATCTGTATTTGCAG

CCGGGCAGGTTTTTTTTTTTTTTTTGCAACATTGCCCTTTGATGTCCCATGAGGGCCA
GGCCCAGGCAGAACCCATCCATTTTATCCTTAAACTCANAAGGAAATTTGTCTAAATAT
TAAAGGATTAATATGGGAATAAAAAATGAACCTTAAACCCTGCCACTGATACACAAGCTG
TCTCTCTAGAGTTCAATGAACACTTCAGGAGAGTATTTCCAACAATATTTAGATATTGG
AATATCTAAATATTGTTGATTTAGATAACCACCCTAGATTTCTCACCACCCTAGAACATT
TAGTGGGGGAGACATTCTTTCTCCTTTTTCTGATAACTTGGTCAGAAGTGATTGACTGNG
CAAATGGTATTTNTCCGGACGCGTGGGTGGAAGCTTGACCTnnnnnnnnnnnnnnnnnnnn

[illegible][illegible]

TAAATCATGGTCATAGCnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnTCCGCTCACAAAAATTNCA

NCACAACATACCGAGCCCGGGAGCCATAAAAGTGTAAAAG

Sequence 2254

AGGTACATGTGCCANNTTTGTTATATCTTTANCTATATNCNNNNCTACTTGCCCCCTGATC

TABLE 1

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ATCTATGNGTAGACAATAATTAGTAAGGTCAAATTTTTACAAACTCCTCCTTCAGCTGC
TAGCAAGTAATCAAGAGCTAGTCTATTTTGATAGATAGCATTTCTCATCAGAGTCTCTTG
CCAGGCAAGAACAGTCAAGGCTTGAGTGGTNTNNTTANTGNCTGCATTCTAAAACCTGCTT
GGCNCCATATGACANNGCCGANCATGTAGATGGGGGTTGATATCCCCATGAGACATCTT
GTGCCCAAGTGGCAGGTCCATAGTATTGTAAGATTTTTTCAGGGGGCCATTTCATCGTCTT
TCCAATCACCTATGGCTATGCTTCATTTTTACAGGAAGCACAGACTGGGAAGCCCAGAA
GTTTACCTGTTTTATGGNCCCCTAAAAAAAANANGGTTTCNATGGGTGCCAAATTTAC
ACAGNTTACCTGGCCCACTTGATTNAGGGAANNTTTTNANNCATTAAGNNCCGAANCCCN
NNGGGNATCAAAAAGNTTGGCCCCCTGGCCCCGNNNGGGCCCCGCCCCNCC

Sequence 2255

ACCTGCCCCGGGTGGCCGCTCGAGGCGCCCCGGGCAGGTTTTATTTAACATTCAAACCTCA
TTAAGACATGTGCAATATGGCAATTTTACTGGGGATTAACCCCTACCTAGGATTGCTTGC
TGGGGCTTAGCAACAGGGTCCAGTTCACACTTAGCACTAATTAATACTTTATTGAATAA
ATACAATACCAAAACAAATGCATTCAAATGCCGGACGCGTGGGTGCACTCAAGCTAGGTG
GGACGCGTACCT

Sequence 2256

ACTTTTTTTTTTTTTTTTTTTTTTAAAAATTCAAAAATTAGTTTATTAGCTTAATATAA
TTAGGTCAATGGAATCCTGTTTTGATCTCAATACTTCCCATATTGCAATATATAAATGTG
ACAAATTCAGCTGTTTTGCGGCATAGATAAGTGTCTAAGCTGGGCAGTTAGTCTACCCGT
TTATAGTTCATGTTCTTCATGGCTTTCAGCATTTGTCACCTTCTATGATGTGTTCAAAG
ACCAGAAAAGGCCACACTTGACCTGTCAGCTGGTCCTTGAACAGCTGTAGGTTTTTTTTT
TTTTGAGACAGAGTCTCCCTNTGTTGNCCAGGCTGGAGTGCANTANCGCAACCTCGACTN
ACTGNAACCTCTGCCTCCAGGTTCAAGNGATTCTNCTCCTCANACTCCTGAGTAGCTGGG
ATTACAGGCCCATGCCACCATGCCCGGCTGATTTTTATTTTTAGTAGAGATGGGGNTT
CACCATGTTGGCCAGGCTGGTNTTGAACCCCTCGGCCGNTTCTANAACTAGTGGGATC
CCCCGGGCTTGCAAGGGAAATTTCCNATTNTTCAAAAGCNTTAATCGGATACCCCGTCC
AACCNTNNGANGGGGGGGGGCCCCGGGANCCCCAGCTTTTTGGTT

Sequence 2257

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGCGCAGGACCTCAGATTAATAATAT
TGCTGAGGTGAGACGCCACAATTTTCATGACTTCTTCAGAAGTAGCACATTTTCGTGAC
TTCCGCTGTCTCTGAAAAACAAAGTTATTTGGAACATGTTTCATGCAAAAGTGATTCTGA
CCAAGTCTAAATCGAGCTTTTCTACTGACATGAACTGNTGGAAACTGATCTTATTTTA
TAAGAAAGTGTTTTCCCTNAGGGGGGGNNGTGTGNTTTCNGAACANCCCNCTNATTATT
TTTTCCCCCGGNNCCNTATAAAATATTGGGGTCCCCCCCCNNCGGGGGGGNNGGGGNAT
TTTAAAAATTNTTTTTTNTCCCCCCCCNCTGGGGGG

Sequence 2258

GGCGAATTGGAGCTCNCCGCGGTGGCGGCCCGAGGTGTACAAAGCTTCGACCCACGCGTCC
GAGCAGAACTTGGCAGCAACAGAGGAAGGGCCCCCTGGAGCCGGCTGTCGTGGATGCCTTT
AATCAAGCCTGGCATTGTTGCTCACGAATGTCCCAACTACTTCCGCTAGGCCCATCAT
GGCTCAGGCTGCCAAGGCTTTTCTGTCACTNTTTTGTCTCTCACACTGACCAAGTCT
TACCTGCCCC

Sequence 2259

CGAATTGGAGCTCNCCGCGGTGGCGGCCCGCCGCGGCAGGTCTTCGACCCACGCGTCCGTA
GTAATAGGAATTAAGTACCCCTTTNGGATGGGGGAGAGCATCAGGCTGGGGTCAGGTAA
GTGTAATGGCCTTCTGAGCATGCTCTTAGGCTGACTCC

Sequence 2260

CCCCGCGGTGGCGGCCCGCCGCGGCAGGTACAATTAGTTATCAATTCATGGGCTATGGCCA
CTGGTTTGCTGGATGGTCAGGGACTTGGAAGGAACATGACTGGAAAATTGGTGACAAAAC
GGTCTGTGGAAGAGGTATATACACAGATCTTTCTGAATGGGTGAAAAATGTGAGGATATT
TGTGTCTCATATGAATGCCCCAAAGAATGACTTCAGCAGAAGAGGATTTTAATAACCAA
GTAGATAGGATGACCTGTTTCAGCCCCCTTCTCCAACCATGCAGGTAAGTACCAATGAGC

[illegible]

TABLE 1
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TTTTATACTTTGGTTTAAACAGGGGAGAGGGGGAGTNTAGTTGAAACAATNTTACAGAAG
TAAAGTAGGCCAAAAAGTTAAAAGGATAAACGGTTACAGGAAAGTAAACAGTTCCAGGNGC
AGAGGCTTTAAGTNTATCCTAAGGNGATGGACCCCGGGCTTTGGGC

Sequence 2270

AATTGGAGCTCCCCGCGGTGGCGGNGAGGTCAAGCTTCGACCCACGCGTCCGGTTTGT
TTTTCTTACGGCAACTCAAAGCAAAGAGCTGGAGGAGCCAGNCATTATAATTGCTTACT
CTCATCGCTTAGCGCCCCAGGTGGGATGTGTTCCAAAACACATTTTGTNTTTATAAGG
AAATGTAGTTAGGATTAATTTTATTGTCCTAATTAGAACTCACATTTTGGTTAAATCCTC
AATTTCAATTAATAAAAAAAAAAAAAAAAAAANGGN

Sequence 2271

CNCTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTCTTGAGTC
GACCCACGCGTCCGGTGATATGTCACAATGCCGTGTAGCCAGAGCCTAGACAAAAGTTAC
AGCACCTGGGAGATCAGTGCAGAGATATGTCACAATGTCCCCAGTAGGCAGAGACCAGGC
AACAGTTGGATCACCTCGGGATCAGTGCAGAGACATGTCTCAATCCCCCTGTGGGCACAG
CCTAGACAAGAGTTAAATCACCTCGGTTAACAGTGCAGAGATATGTCAATATTCCTGT
AGGCCGAGCCTACACAAGTGTTACATCACTAAGGTGATCAACGCATAGATATGTCAAAT
ATTGCCGTGAAAGCAGAGTCTAGACAAGAGTTACATCACCTGGGCGATCAGTGCAGAGGT
ATGTGACAAGGCCCTTTAAGCAGAGCCTAGACAATAGTTACATCACCTGAGTGATCAGT
GCAGAGGTCTGTCACAATGCCCTTTAGGCAAGAGCTTAAACACCTCGGC

Sequence 2272

AGGTACTTGACCCACAGCCATCTGGGATGAGCCGCTTTTCAGCCACCATGTCTTCAAAT
TCATCAGCATNGAACNNGGTGAAGCCCCACTTNTTGAAGATGNTGGATCTTCTGGCCGGC
CAAGGAAACTTGAAGTTGGCCCTGCNGCAGGGCCTCAATCACATTGCTCCTTTGTTTCTT
GCAAGCTTTTGGGTTGCCGGGATTGGGGACATNGATAAACTTGGGCCAAATTGTGAAACC
CTGGGCCACAAGTGCCCTGGGGGNGCCTTTCCAAAAGGGCCACCCTCCGCCATGCNCTG
TTNTGGGAAGNCCTTGTTCAGCCCCCAANCNACAGGGGAACCAACCAATTCTNTNGT
TTGGAATGGCCGGGAATTGAACCGTTGNAAGGGGGGTTGGGGAAGCCCCGCCACCCCC
NGGNATAATGGGGAAAGCCAATCTTTTGCCAACAACTTTTTTAACCAATGTTACCCTT
GCCCGGGGCCGGGTCCGCTTCTAAGAAACCTAGGTGGGGGATCCCCCGGGGGCCTGGC
GAGGGGAAATTTTCAATTATTCNAAAGCTTTAATTCTGAATACCCGTCCGGACCCTANG
AGGGGG

Sequence 2273

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTAGCTTGAGTCGACCCACGC
GTCCGAAA
AAAAAAAAAAAAAAAAAAGGGGNGGCCGGCCGCCGGGCGGTCCCNTCANANANAAGG
GGGNGGGNGCTAATCCAGTACCAAACNTTC

Sequence 2274

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCATTTCTACTGT
AGAGGAAAATATATGACAATTATCACTGTCACTGCCTGACATACAAAATGGAACAGAAC
AGTGGGGTAATGAAGGGAGGGGAGGGGAAAGGGAAGAGCAGGAGAGAGAGGAGTTGGAGGA
GAGGGGAAACAAAGGGGAAAAGGGTCTATTAAACAGAGGCCTAGAGAAGCTAAATTTGGA
AATGGCAAATCTGAGAAGAGCCTGAATAAAAAGTGGGGGTGAGGCCATGCACAGTGGCTC
ACGCCTATAATCTCAGCACTTTGGGAGGCCGAGGCAGGTGGATCACCTGAGATCAGGAGT
TCGAGACCAGCCTGGCCAACATGGCAAAACACCT

Sequence 2275

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCG
TCCGAAAATGGGAGACAATTTACATGGACTTTGGAATAATTTTTTCTTTGCATTC
ATCTCTCAAACCTAGTTTTTATCTTTGACCAACCGAACATGAACAAAAACCAAAAGTGCA
TTCAACCTTACCAAAAAAAAAAAAAAAAAAAGACCTGCCCCG

Sequence 2276

CCGCGGTGGCGGCCGCCGGGCAGGTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGACTAG

TABLE 1

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AGGGATGAACCACCATGCCAGGTAATTTTTTAATTTTATAGTAAAGGTCGGGTCTCACTA
TCTTTCCTGCTCAGCTGGTCTGGAACCTCTGGGTTCAAGTGATCTTCCCACCTCAGCCT
CCCAAAGTGCTGGGATTAAGAAGTAACTACCACACTCAGCCACACATAGGTAATTTAA
AATATTTCCATAGTCACAATTAACACATATAAATAGGTAAAATTAATAACATTTTAT
TTAACCCAATATATTAATAATTTCCACTTTAAAAAGAGACCTCGGCCGCTCTAGAACTA
GTGGGATCCCCGGGCTGCAGGGAATTCGATATCAAAGCT

Sequence 2277

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTATTCGACCCACGCGTCCGTAG
TTTTTATCTTTGACCAACCGAACATGACCAAAAACCAAAAGTGCATTCAACCTTACCAA
AAAAAAAAAAAAAAAAAANGT

Sequence 2278

GNACCCAGTAATCACATAAAGGNTGTCAGGTCATGNTGTTTATTTAGCTTAAGTGT
TTTTTATTTGTTGAAGGGGTNGGTGTTATTTTCAGNCTTTTTCTTATTGGGTTGACCAGA
CTTGGTAAATCTGTAAGAAAGTTCATAAATTATTGGGGGGAAGGNATTTCTCTGAA
ATTGGGCTAAATTCCTTGTAGCTGAAAAAAAAAACAACAAAAACAATAAATANGGN
GGCCGGGCGCGCTTCTAAGAAACTAGGNGGGGGATCCCCGGGGGCCTGCAGGGGAATT
CCGNATATCAAAGCCTTATCGGATTACCCGNCGNACCTCGGAAGGGGGGGGGGGGGCCCC
GGGTACCCAAGCTTTTTGGTTTCCCTTTAAGTGGGAAGGGGGTTAAATTTGCCGCCGT
TGGGGCCGTAAATCAATGGGTCATAAGGCTGGTNTTCCCTGGTGGNNGAAAAATTTGGT
TAATCCCGCTTCAACAAATTTCCACCAACCANTACCGAAGCCCGGGGAAGCCATAA
AAAGGTGGTNAAAAGCCCTGGG

Sequence 2279

NGNGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAAAAAAAAAAAAA
ACAAAAAAAAAACCACTTCACTAATTCATCTGACAATGCTGTTTCATATTCATGACGCCAT
TTTTTGTGTTGTTGTTGTTGTTTCTAATAATAAGAAGGAGACTTAGGGCTGTTG
GGCTGATATATGTTTGGGGTCCACCTCCCCGCCTCATCCGTACCTCGGCCGACCAGTG
CAAATATCTACCCAGTTAGAAGAGTAAATACCATCTTAGTGTTATTATCAAAATATTNTG
AACTCATGAACCTCCTCAGACTGTTGCTGGGGACTCCCAGATATCAATACTCTGAGAACC
ACTGATCTAATGTTTCTTTAGTCAGTTTCTATTGTTCTCTAGTATAACCAAGCATAAAA
GTAAT

Sequence 2280

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCTCAG
GGCACAAGTGATCATTTGGGATCCTAAGTTAAAAAGGAAATGCAAGAGTAGGATACTCC
AATCCAGAGTCTTTGCAGGAGGCTAATCCACAAGAAGGGTAGCATCAGAGAAAGTGGC
ATTGGTCTTAGTGGTGGATCATCAGGTAGACAAGTGATAGTGTGTGAACCATCTGAAA
TTCATTTTACCGTCACCACTCTTACAAAGGACAGTTTATTCCCAAGGACAGTGCTGACGG
GGAGGGGGACAGGCAGGGAGTTAGGAGGGTTTTTCGAGGATTTCAAACAGGTGGAACCCAT
CCATCCCTATTCCCAAGGGCCACTTACAACCTAAGGGGTGGTTACAGGATTAACCTACCA
GTTCATTTTCAAATGCTGCTTTGAACCTCAGAGGGTTGATACTTTTAATTTGTAATTTT
TGTAACCTTTTTACAAAATAGT

Sequence 2281

CCGGGCAGGTTACAAGCTTCGACCCACGCGTCCGGTCATTATTACCCTCACTGTCAACCC
AACACAGGCATGCTCATAAGGAAAGGTTAAAAAAAAAAAAAAAAAAGTGCGGCCTCG
AGCGGCCGCCCGGGCAGGTACAAAAAACCTTACATAAATTAAGAATGAATACATTTAC
AGGCGTAAATGCAAACCGCTTCCAACCTCAAAGCAAGTAACAGCCCACGGTGTTCTGGCCA
AAGACATCAGCTAAGAAAGGAACTGGGTCTACGGCTTGGACTTTCCAACCTGACAGA
CCCGCAAGACAAAACACTGGTCTTGCCAGCCTCTAGAGAAATCCAGAACACTCAGCC
CTGACACGTTAATAC

Sequence 2282

GCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTCAAGCTTCTACCCACAGCGTCCGTTT
ATGTTCAAGCAATAAAGGTTCTATCCGTAAAAAAAAAAAAAAAAAAGNGCGGCCGGCCG

TABLE 1

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CCGGGCAGGTACTATGACTAGACACATGATGCATGGCTAAAAAGCTCTTCTGGATAACTC
CTTAGNGAAGGNCTAACNNCCCCACCACCATCAACCTACAGCCCTGCCTTTTTTTTTTTT
TTAANAAGTCTGTCAACACAATNTTGTCTGGNGCTNGATTTCAAATAATACATTTNTAGA
ACCTGCCCGGGCACACGCCNATAACGANTGGTTTTNNNTTATATCAATTAACGTTAA

Sequence 2283

CCGCGGTGGCGGCCGAGGTACTCCAGCCTGGGCGACAGAGCAAGGCTCAGTCTCAAAAAA
AAAAAAAAAAAAAGGAGAGGAATAGTAAATTTATAGTGGAGAAATCTGCAGTCACTAAC
TTAACCAAATAACCACATGGATGTATCCCTTATTAAGGTAATCGAAAGGGCACAGCGTT
ACTTCTGTGGAATCTTGCCAAAATGCATAATCTCAATCAAATCATAAGAAAACATCAA
AATTGAGAGGCATTCTACAAAACCAATAATTAACCAATATTCATCAAAAGTGTCAAGGTC
ATAAAAGACAAGATGTTTATAGAAATACATTAATTTTGGTTTCTACTTAAATTTTATTTT
TTAAATAATTGTTTATAGAGATGTGGCCTTGTTAGTTGGCCA

Sequence 2284

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGGGATTTTTTTTTTTGTTTT
TTCTTTTTTTTTGGTTTGTTTTAAATCAGTGCATAAAATTTTCTTTCTCATTTGAGCA
GATGGACAAACAGATGGACTCTACAGCTAAGTGGAAATATCAAAGGTAGAGGGTGATTCT
GTGAGACTGATAGGCCTGACTATTCTCAATTCTCCCCACTGCAGTGTTACGCGGACGCG
TGGGTGGAANACCTGCCCCG

Sequence 2285

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTGCGCTCGTAACAGTG
TAACATGTATTATGGTAACTTCTAATCTTGTCCTTAGACAGTCTAGTCCAAAGGCATA
AAGAAAGTNTGCTTTAAAAAAGGAATGGTTATCTTCAAAAAAAAAAAAAAAAAA
AAAAAAGT

Sequence 2286

TAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACGACTCATATAGGGATCTAGA
TCACGAGCGGNCGGCCGCGCGGGCAGGTCTCCCATCTTGCGCAAGTTGGTCACGTGGTCA
CCCAATCTTTGATGGCTTTCACCTGCTCATTGAGTAATGTGTCTCAATGAAGTCACCG
GACGCGTGGGTGCAAGACCT

Sequence 2287

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGTTAAAGGAATAATCTGCAGAACATCTTGAT
TTACAAGGGACAAAATGATGCAAAATATATGCTGTCCAACCTACTGGTGAAGTGGATCAG
AATGGTCCAAGGACTGTTAAACAGAGGAAGTATTACATTTTGAAAAGTGGCGACGCGT
GGGTGCAAGCTTGACACCT

Sequence 2288

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGCTGGTACATAAANAATTTN
TTNGTCTTTAAATNGATACNAATGTCTATCANCTTTAATCAAGTTGTAAGTTATATTGAA
GACANTTNGATACATAATAAAAAATTATGACAATGTCCTGGAAAAAAAAAAAAAANAGT
GCGGCCGACCT

Sequence 2289

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTACCATACTTGTCAATTG
CGTAGACTTCTTATCAAAATTTACATTNATCTGTAGGAAAATGTAAAGTTGGTAAAAAT
TGTTTACACAAATCACACATTTTCCATCCTTGACAATTGCAGNGTTTTTTTTTAAATATT
GCTGTATTAAGACAATTTAACTGAAGTAGGTTGTAGAGGCTANAAACCTGATTAATAGA
GCAGTATTAGACAATTCTAACTGAAGTAGGTTGCAGAGGCTAGAAGAAACCTGATTAATA
CGGACGCGTGACCT

Sequence 2290

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAAGCTTCGACCCACGCGTGCG
AGTCAGGGAAGGTTTGTATGTTACATTTATTTACCAGAACTATTTTAAATATATCAA
GGGGTTTACTATGCCAAACAAAATCTAGGGAAAAATACTGCTAAAAATGGATGCCTCAT
CAGAACATGCTGTTGAGTCCAATGTGCCATAAGACATTTTAGCATGTTAAATAGCACTT
TAATAGCAAAAAAGGCACATCAACTGCGAAGTTATCCTTAGTTTGCAATGCTTTTTCT

TABLE 1
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AGATTAATGATTTTTCAATCATTAGGGTACCTGCCCCG

Sequence 2291

CGCTACCTGCCCCGGCGGCCGGCCGCACTTTTTTTTTTTTTTTTCAAGTTTTATGA
TTTATTTAACTTGTGGAACAAAATCGGACGCGTGGGTCGGACGCGTGGGTCGAAGCTAC
CT

Sequence 2292

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCTACCTCCAAGCAGGATGATGGG
CTAGACATGGAGCATACATAAACGGGCAAGATTCAGTCCCTGACCGCAAGGCACTTACAG
TCTAGTTGGGAAGGGAGACACAAATGTACCT

Sequence 2293

CCGCGGTGGCGGCCGCCGGGCAGGTACCAGAGACTCCAGGAAAAATCAAAAATTTGTTT
TTGCAATTAGCCGAGCACGTAGCCAGTCTCTAAATGTCACTTCATATTATGTTTGTA
ACAATGTAATAAGAGATCAATGGCCATAAGAAGCCTGAGAATTAGTGCCTACAGACCCA
GTTCTGATGAATTCTCAGCCCCAAAAGAATCACCTGATCATTCTAGGTTCTAAAAGTT
TCAATTATTGGACAATATTGCATAGCTAGAAAAAAGTGGCGCCTCGA
GCGGCCGCCGGCAGGTACTTTGAGCAGGATAATAACATAAATTTCAATTTAAAAAGTTG
TATTTATAGCCCCAGTAACCGGAAAGAATTATAAGTAATTATGGAAGTATTATATTCTGA
CCATACCAAGAGTTAAAAACAAAGAGTTCCTACTAAAGAGGAATATTTTCAAGATGATCT
GGTCCATCATGTGCATAGTTAAAGAATGGTTGGTTTAATAAAGATTCTTTTGCAAATAAA
GAAT

Sequence 2294

AGGTACAAGCTTCGACCCACGCGTCCGATGAACAACTGGCTGCTCTGTCCCAGGGTCCAA
TATCCAAGCCCAAGAGGAAAAGAGAGAAAAAAGTGCAGGCCGG
CCGCCCGGGCAGGTACAGATAAATATAGGAACTACTTCAGATTATTGGACAAATAAGAA
TTTCAGTGTGTCACTACCTATAATTAAGTAGCAGCACACCACAACCACAGCAAGTAAACA
CTAATCTCCTCTACTGCCTTTTTGGGGTCTTTCCAGTCACAGGAGCTAATTTACAGGGA
TACCACTGGGTTTCAACCAATCTCTGAAAGTTCCTTTATTATGAGTTTTGAAATTTAACT
AGTGCATCACCTACAATTCTGTTGGCTAGTTTTTTCTTACTCTTCACTAATTAAGTTT
AATACAATATGTAATGGTTTCAAAATTTT

Sequence 2295

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGAAA
CTTTAATTTTTAGGAATAACATATTGACTTACTGAACTGAAGCATTCTGAGTTGAAAGGA
GCCCCAGAGGAAAGGAGTTCTGTGTTGCTCACATGTTAAAGCTTGCTCACCTTCAGAGC
AGAGGGAATACCTATCTTCAGATATCCGCCATTTTCATCTCTTCATTATAGTCAAACAG
TGTGACTTGAGAGTGTGCTGCTGCTGTATTCTGGCTTATGAAGATTATTTGAAAAA
GAACTCTTACTACATTGAAATGCAGACTTTTAAAAATTTAAATATTGGATTAGGCAGTCA
AAAAACCAACAAGCATAAAAGGTCAGTAAGTTGTAATCTTAAAGTAAAGGTGGAAAC
TCATTATAAATGGAAGAAAAGTTTTGATTTCTTTTTGTTTGATGGGCAGTATGCCATA
TTATATCAAAGTTGGTTTAAAAAATACTTCCATCACTATTTTATTTAAATAAACAT
TT

Sequence 2296

CCGCGGTGGCGGCCGAGGTATACTTTGCACCTTGAAAATATAAAATAAAATAAATTTAAA
AATAAAGGTAATTTTGTCTTCCATGTCAGCTGAAAATAAGTGAAGACTGGGTCAGTAAT
AACATTGCTTTGCTGAATTCAGAGAATTCTAATAAAATATTTTATGTTGGGAAGCTATCT
GTATTAATAAATGATCTAAGGCTGGTAACAGTGGCCATACTTATAATCCAGTGCTTT
GGGAGGCCAAGGCAGAAAAATCACTTGAGGCCAGGAGTTTGAGATCAGCCTGGGCAACAT
AGTAAGACCTTATCTTACCCGGACGCGTGGGTCGACTCAAGACCTGCCCGGGCGGCCGG
CCGCACTTTTTTTTTTTTTTTTTTAAAGCTGCTCCTTGAGGATAAGGGCTAACTCACAG
GCAGTGCACCAAGAGCCACTATAAAAGATCCTTAATGAGCAAAATATATCC

Sequence 2297

CCGCGGTGGCGGCCGCCGGGCAGGTCAAGTCGACCCACGCGTCCGCTTGTTTTGCTCTA

TABLE 1
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TCCCATAGGAGTTGGTATGTTGTGTTTCCAATATCATTTACTAAAAGAAAATTTTCCTTTT
TATTTCTTCATTGACCAACTGGTCATTTGCATGTTCTTTAATTACTATGTGTTTGTATAG
TTTTCAAATTTCTCTTATTAATTTCTAGGTTTTCTGTGGTCAGAGAAGATGCTTGATA
CTACTTTAATTTTTGAATGTTTAACTTGTGTTGTGACCTAACATATGATCTACCT
TGAGAATTATCTATATGCTGAGGAAAATAATGTGTATTACACAGCCATTGGATGAAATAT
TCTGTAACATCTCTTAGGTACCT

Sequence 2298

GAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACGCTTATTTATTTCTTTAGGAAT
TGCAGGTTCTAACAAAGTAGGGGTGAGGGGGGTGTTACAAACCAGTCACTAGGCAGGAA
CATTAGACTCCAAAAGCAGAGAAATGCTTAATTTTTCTTCTACCTGTTTCACCACATTCA
TGTAAGACTGTAGTAAAAAGATGGTGAATCAGGCTGAATCAATCTAAATAACAACCTAA
GGCTCCCAAATCACATGAACCTAGGACCACTAAATCCAATGTCAGACGTGTTTAAATGGT
GCACTGCTCTACATTTTTCTATTATGCAAAGAGCTAGAAAAAATGGTAGTGTCATTATG
ACATTCATGAAAATGAANGAAAATCTTTTCAGGAAAAATTAAGAAAAATAAAATGTTTAC
TAAAGAAAGAATGGTCCGGCTAAGTGCTANAGTTTNTTTCNNTTTTTTTTTTA

Sequence 2299

AGGTACTATCAAGCTTATTTTACCTGCAAAAATATTTTAGCTACACTTGAAAAAATA
AACTTGAGAATATAACTTCACATTTCTAAGGCCAGCGGACGCGTGGTGAAGCTCGACC
TGCCCGGGCG

Sequence 2300

AGGTACGATTTTCCCTTCGCTTGAATATTATCCCTGTATATTGCATGAATGAGAGATTTC
CCATATTTCCATCAGAGTAATAAATATACTTGCTTTAATTCTTAAGCATAAGTAAACATG
ATATAAAATATATGCTGAATTACTTGTGAAGAATGCATTTAAAGCTATTTTAAATGTGT
TTTTATTTGTAAGACATTACTTATTAAGAAATTGGTTATTATGCTTACTGTTCTAATCTG
GNGGTAAAGGTATTCTTAAGAAATTGCAGGTAACAGATTTTCAAACCTGAATGAGAGA
AAATTTGTATAACCCATCCTGCTGTTCCACCTGCCCCGGGCGGCCGCTCTAGAACTA
GGTGGGATCCCCGGGCCTGCAGGGAATTCGATATCAAGCTTAATCGATACCCGTCGACC
CTCGANGGGGGGGCCCGGGTACCCAGCTTTT

Sequence 2301

GGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAAGCTTCGACCCACGCGTCCGGTGGCGA
GTGCCTGTAATCCCAGCTACTGGGAGGCTGCGACAGAAGAATCACTTGAACCTGGGAGGC
AGAGGTTGCAGTTAGCCAAGATCATGCCACTGCACTCCAGCCTANGCAACAGAATGAGAC
TCCATCTCAAANNAGAAAAAAAAAAAAAAAAAGTGCGGCCACCTGCCCGGGCGGCC
GGCCGCACTTTTTTTTTTTTTTTTGGCATAACAGGTTCAATTTATTGAGTGGAAGCTT
ACAAAAGGGCCACTGGCCCCCTCC

Sequence 2302

CCGCGGTGGCGGCCGCACTTT
TTTTAGGGTTGAGGGGAATGCTGGANATTGNAATGGGTNTGGANACATATNATATAAGT
AATGCTAGGGNGAGTGGTAGGAAGTTTTTTCATAGGAGNGTATGAGTTGGTCGTAGCGG
AATNGGGGGTATNCTGTTTGAANACCTGCCCCGGGCGGNCGGCCNCACTTTTTTTTTTTTT
TTTTACTTTGGCNGGGGNTTTTTCTTTCTTTTTTTTTTTCAGCTACNGGAATTTANCCN
ATTCANAGGAAATCTTCCCATAATTANGGAACCTTNTTACANANTTACCAAGTNTGGG
CNNCCCNATAAGAAAAAGACTGAAATAACAACAACNACTTTAANAAAT

Sequence 2303

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCNNTNTNTTTTTTTTTNTTNGCCAG
NTANAATCTNAGCTTTTTATTTGTAGGAAAAAATAAACAGATTNCCCTCCNNAACANGGC
GTNACAANAAANGAGGCAATNAAGGGAAAAANGCANATNCTAAACGGACNCNTGGGTTNA
ANCTTGACCT

Sequence 2304

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGT
CCGAGAAGAGTTTGCAAATGCAACAAAATATTTAATTACCGTTGTTAAACTGGTTTAG

TABLE 1
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CACAATTTATATTTTCCCTCTCTTGCCTTTCTTATTTGCAATAAAAGGTATTGAGCCATT
TTTTAAATGACATTTTGTATAAATTATGTTTGTACCTGCCCCG

Sequence 2305

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCCGCA
CTTTTTTTTTTTTTTTTTGNTTCTGGGTGAAGTTTATTCTGTTTTACATCTAGGT
TGTTGGGGAGAGTGATAGACAAAGTTCTGGATTCTGGGCATCGTCGGCGCATGCTTGTA
TCCTACTTGGGAGGTTGAGACAGGAGGATCACTTGAGGCTAGGAGTTGGAGGCTGCAGTG
TACCTGCCCCG

Sequence 2306

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGCGCCGCACTTTTTTTTT
TTTTTTTTTTTTCTTCTTCTCTTGCCTGGATTGAGTCCAGAAATGTTAGGACTACC
TCAGTTTGTCTCAAACCAAACCTCAAACAACAGCAGCCACTGGAAATCAAGGAAACTTCA
CTAAGAATTTAAGATCATCAAAACACCGCCTCCTTCCCATTTAGCCGGACGCGTGGG
TCGAAGCTTGTACACCTGCCCCG

Sequence 2307

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACCATTAAATA
TTCTGAGAGGTGAATGTAAATATAAAAGGTATAGGTTTTTTTTTAAAGAAAACAAT
NAACTTTCAAAGAGAAAACCAAAAAAAAAAAAAAAAAAAAAAAAAAGTGCGGCCGCCG
GCACTTNTTTTTTTTTTTTTTAAANANANATGAGGTTTGNTATGTTGCCAGGCT
G

Sequence 2308

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTCAAGCTTCGACC
CACGCGTCCGTTCTAAATGATCGACAACCTCTCAAGCAATAACTTGACTGTTGAATAGAAG
ATTAAGAAAAGTTGGTTAAAAAAAAAAAAAAAAAAAAAGT

Sequence 2309

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAAGCTCG
ACCCACGCGTCCGAAATAATAAAGCTAGAAGTAATTTTTCTTTTGTCTATTTTCCAA
ATTGACTCGATATTGATGGCTACTTTGTAAAGTTTTATTTAAGTTTAAAGGGAATATT
ATTGATCACCTCTATGTGCTCAGTACCT

Sequence 2310

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGCTTCGACCCACGCGTCCGCA
AAGTTCACCAAATTCGCTACAGCCTAAGACTAGCCTCACCAGTCCTTTTTCCCATTAATC
AAAACTTTGCAGAAGAGACAATGATTTTACCATTCAATCAACCAGTTTGCACAGAGAGA
GGCTGAAGCCTGACTTGTAAAGAACTCTTGCTTTTGCCAGTGTGCCAGGTTTCTGGGT
TCCCCTTCTCTGAGTGGCTTTGATGACCCTGCTTGCTGTGCCATAGCTATGGGGGGGCCA
AGCCATGTTACCCAAAAAAAAAAAAACNNTNNNNNNNGGTGCGNCGNCCCTCGNGATCT
AAANCCCCATAGGGGGNGGGATTAACAATTNCCATTCCCNNGGGGAAATTTTTGGCNCC
TTTTNTTGGGGAANAAAATTTTTTTTTGNAAAATTAANGGTTAAAAANCCNCCCCTT
TTTGNAAAAATTTANTGGNTTTAACCCCCC

Sequence 2311

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTAANGCTG
CTCCTTGAGGATAAGGGCTAACTCACAGGCAGNGCACCAGAGCCACTATGAAAAGATCC
TTAATGAGCAAAATATATNCCCTATTATTTTCTACAAGTTGCTTTTACTTGAGTAGGA
ACCTTGATTG

Sequence 2312

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACCTGGTATGCCAGA
TGAGAATGACAGGAGCCATCCGCAAGCAGTTGGCGGCTTCTTAGAAGGCTTCTATGAGA
TCATTCCAAAGCGCCTCATTCCATCTTCACTGAGCAGGAGTTAGAGCTGCTTATATCAG
GACTGCCCAACCATTTGACATCGATGATCTGAAATCCAACACTGAATACCACAAGTACCTGC
CCGGGCGGCCGCCGCACTTTTTTTTTTTTACCTGAAAATGCTTATTCTAGCTTCA
CATTTGATTGTTGGCTAAGAAGAAAATTATTTATTAGACTTAATTTTCTCAGAGTTT

TABLE 1
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AAAGATTGCTTCAGATCTTAACTTCTAATGAGGAAAGCTGAGA

Sequence 2313

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGCAAGCTTCGACCCACGCGTC
CGCAAAGTTCACCAAATTCGCTACAGCCTAAGACTAGCCTCACCAGTCCTTTTCCCATT
AATCAAACTTTGCAGAAGAGACAATGATTTTACCATTCAATCAACCAGTTGCACAGA
GAGAGGCTGAAGCCTGACTTGTAAGAACTCTTGTCCTTTTGCCAGTGTGCCAGGTTTCT
GGGTTCCCCTTCTCTGAGTGGCTTTGATGACCCTGCTTGCTGTGCCATAGCTATGGGGGG
GGCCAAGCCATGTTACCCAAAAAAAAAAAAAAAAAAGTGCGGCCGCGCCCGGGGCA
GGTGTCACTTTCAACTTGGTTATGCCTAAACAAAGTCTCCCTCATCTCCAAACAATTC
TCCCGACTTTCTTTCTTTTGGAGATGGAGTCTTGCTCTGTGCGCCACGCTGGAGTGCAG
TGGCATGATCTTGGCTCCCTGC

Sequence 2314

CGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTTTTTTNAAATGCTCAAAAGA
ACAATTTTATGTAAGTTTGTGATAGAGGCCTCAGGTAATCTACAAAAATTAAACCCA
TTTTCAATGCAAAATCCCGAACATAAACAAATGCTTTTAAAAATATGGATGGNGTGGTT
ACTCTTTTAGTAATACTTGGATTATCATCAAAGATTAACTTTATTTTTTGNGTGTGTG
TGTGTTTTTTTTTGNNGNGNTTTTTTTTTTTTTTTTATTATACNCTAAGTTTAG
GGTACCTGCC

Sequence 2315

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAGCTTCGACC
CACGCGTCCGACTTTTGTCTTAGACCCAGTTAGGGTCACCTTACAGTGCAGGTGGAAAG
AAAGCAGGACTGCTGAGAGGAGCTCAGGA

Sequence 2316

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAGCTTCGACCCACGCGT
CCGGATTAAAGTCCTACGTGATCTGAGTTCAGACCGGAGTAATCCAGGNNGTTTCTATC
TACTTCAAATTCCTCCCTGTACCTGCCCG

Sequence 2317

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGNCGAGGTGTACAANGCTTCGACCCACGCG
TCCGCCACACGTAAGTGAATGCTCCTTTAAATAAAGCGTTTGTGTTNGANGTTAAAAA
AAAAAAAAANAAAAAAAAAAGT

Sequence 2318

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTNNTTTTTTTTTTTTT
ATTATCTAAATCAGNTTTATTTAAGAATTTCCAACANTGACAACTNTTATAAAGGGGCAT
CCAAGCACAGGACACANAAGTGCNACAAACAGCATTCTTACGGACGCGTGGGTGGAAGAC
CTCGGCCGCT

Sequence 2319

CCGCGGTGGCGGCCGAGGTACAGAATGGTAAAAATTCCAATCAGTCAAAAGAGGTCAATG
AATTAAGGCTTGCAACTTTTCAAAAAAAAAAAAAAAAAAAGTGCGGCCGCGCCGCC
GGGCAGGTGAGCGGCAGCACTTTTTTTTTTTTTTTTTTTTATGGNTTTTATTTTCA
ATTTTTATTTGGTTTTCTTACAAAGGTTGACATTTTCCATAACAGGTGTAAGAGTGTG
AAAAAAAAATTCAAATTTTGGGGGAGCGGGGAAGGAGTTAATGAACTGTATTGCACA
ATGCTCTGATCAATCCTTCTTTTCCGGACGCGTGGGTGGAANACCTCGGCCGCTCTAGA
ACTAGTGGGATCCCC

Sequence 2320

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGCCGAGGTCTCTTGTCTAGT
ATACTCAAGGCAGCCTAGTAAATTATTATTTATCTATACAATACTGGAAAACTNGNAGA
CAAAAACATGACTTGAATTGCTAAAAAAAAAAAAAAAAAANGAGGGAGAATGAAACT
TCCGGACGCGTGGGTGGAAGCTTGACCT

Sequence 2321

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTNCATTTACATACAACTGA
TCCAACAGGAAGTAAAGCNTTATGAAAAAGAACATGATGCAAATCATTTCCCNNGA

[illegible]

TABLE 1
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AAAAAGAAAATTTTTTTTTTTTTTAAAGCCNTTTTAACCNCCAAAAAANNAAGTGT
TTTCNNNCGNNNCTTTTNNAAAAANNNGGNACCCCCCNGGNGGGGGGGANNTTTTTTAA
TTTTTTNNCCCCCCCCCTNGGGGGGGGGGCC

Sequence 2329

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCACGGTACTGAGGAAATATT
TTGTAAAGTGAGCTTTGGGTATAACTTAGCCCCATCATTATTTAGAGAATAGAGGAGGAA
GAAAGAGGAAGGATTTTAAAGGCAGACAATGACAGACCATTGAGGATAGGTAGGGTTTTA
AAGGGAGCGGACGCGTGGGTGGAAGACCT

Sequence 2330

CCCCGCGGTGGCGGCCGAGGTACCCTAAATTTAAAGTATAATAATAATAATTTTTTTT
TAAAAAAGAGTGTTGTCTTTGTCTTGTATTTCTGCAGTTTGCATGTGATATTCTTAGG
TATAGATTTTTTTAGTATTTGTCTGTATATTGTTATTCGAGCTTCTGGGGATCTGTGT
TTTGGTGTCTATCATTAACTTTGGAATATTCTCAGTCATTACTGCTTCAAACATTCATTC
TGTTGCTTTTTCTCTTCTGGTATTATCATTACACATATATCACACCTTTTGTAACTCTCC
CACAGTTCATAGATATTCTGTTGTATTTATTTATTTTCTCTTTGCCTTTTAGTTTTAG
AGATTTCTATTGACATCACTTAAAGATGATTGATGAGTTGATGAGAATTGAGAGAATTGA
TGAGAATTGTTGATGAGAATTATTCATTGTGTTAGTGTTCATTCTGCCATTGNCT
TTTGATTTTTAGAGCTTCCATCTCTCTGCTTACA

Sequence 2331

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAACCTTGACCGTGACCGTTTG
CTATATTCCTTTTTCTATGAAATAATGTGAATGATAATAAACAGCTTTGACTTGAAAAA
AAAAAAAAAAAAAAAAAAGT

Sequence 2332

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTATTTTATAGAAAAGAA
AACAGAGGCTCAGAGAGGTTAATTTTTCTGGATGTCCTAGATGTTAAATGTTACAACCT
TAATTGACCGATTCCAGAATCAGAGCTATTAACACAAAACCTATTTAATTCTCTCTAAA
TTCTTAAAGACCCAAGAAAAACAACTTTATTGAGATAATTAGGAATTTTTTTTAAAAATA
TCGGACGCGTGGGTGGAAGCTTGACCT

Sequence 2333

AGGTCAAGCTTCGACCCACGCGTCCGTGGTGAACACAGAGAAGACAGTCTTGTATATATT
CCTCTGTATTCTGGGGAGCTTTGACCTTGGAGCTTTGTACCTGCCCG

Sequence 2334

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCAACAC
CTATGTTTATAAAAAATTTGAAAACATTACATATTGTATTTAAAACTAATTAGNGAAGAGT
AAGAAAAAACTAGCCAACAGAATTGTAGGTGATGCATTAGTTAAATTTCAAACTCATA
ATAAAGGAACCTTCAGAGATTGGTTGAAACCCAGTGGTATCCCTGTAAATTAGCTCCTGT
GACTGGAAAAGACCCCAAAAGGCAGTAGAGGAGATTAGTGTCTTACTTGCTGTGGTTGTG
GTGTGCTGCTACTTAATTATAGGTAGTGACACACTGAAATTCCTATTTGTCCAATAATCT
GAAGTAGTTTCCTATATTTATCTGTACCTGCCCGGGCGGCCGCGCACTTTTTTTTTT
TTTTTGCNNGGGNTTTTTCTTTCTTTTTTTTCA

Sequence 2335

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTNNNTTTTTNTTTTTTTTTTCTT
TAAACACCANTTAGTTTATTTACAGGACAAGAATTTACCATNTAACANTCTTTNACATAA
ATTCTGNCTCCCCCACTTTTTTTTTTTTGAANATAACCATTCTTTTTTTTTT

Sequence 2336

CNAANNNGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATCTNTATCAGAGCTTTT
GGGTGACCAGGCACACTGTCAATGAGCAGTAATACGGGGAAAGGAATCTTTGGGGTTTTT
TTTGGTTTGGTTTTTGTCTTATTTTTTGTGTTGTTTGTGTTTTGTTTTGTTTT
TTTAGCAGTAGGCCTCAACAGTGGACTTAAATACTCAGTAAACCATGCTGTAAACAGAT
AAGCTGTCATCCAGACTTTGTTGTTCCATTTCTAGAGCACAGAGCAGATTTAGCAGAATT
CTTAAGGCTTTAGGATTTTCAAGATGGTAAATGAGCACTGGCTTCAACTTAGTCACCAGC

TABLE 1

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TGCATTGGCCCCTAACAAGACAGTCAGCCTGGCCTTTGAAGCGTTGCAGCC

Sequence 2337

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAACAACTGCACATATTTAA
AACATATAATTTGATACATTTTGACTCACAAAACAATCACCACAATCAAGANGATGAGNN
TATAGATCACTCCCAAAAGTTTCCCTGTAGTCTTTTGCAGTCCTTTCTTCATGGCCTTCT
TCATCCATCCACCCCATCTCGGTAACCAATGATCTGCTTTCTGTCACCACAAATTAGTGA
GCACTGTCTAGAATTTTATGTAACTGAATAATAAAGATTTTACTCTTTCG

Sequence 2338

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTC
CGCACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTNGGAATCATCATTAACTTTAT
TTGNCACTNTTGATAGACATTGGTCCACTCCAACATAAAAAAGNAGAATTCACCCACTTCC
ACTTAATATTCTATAGAATGAAGTTGTACCTGCCCGGGCGGCCGCGCCGCGCCGCGGCGAGT

Sequence 2339

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAAGATTTTTTACACAA
AGAAACTTAATGCTGTATTAATAAATTCAGTGTGTAGCTTCAATTGGGATAGTTCACAAA
GTGAAGATTTTGTGAGGAATAAGTGCAAATTTTTTTTTTATTTTAAAAAATCTTTGAAA
CTCTTAAGTCTTTGTGTCTGCAATAAAATGTACCTGCCCGGGCGGCCGCGCCGCACTTTT
TTTTTTTTTTTTTTTTTTTTTTNGAAANGTTTGAAGTTAACTCATTTTATTTNTAGGA
TTNGGATTTCAACATTTTAATTTNTTTGGAATATAAGTCANTTTTTGCAAGCTAAAAAAT
AGAATCAAA

Sequence 2340

TTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGGACTTGATTCATAACCAACCA
ACCCAGGCTGTCATGCTAAAAAAGGGCAGAATCTTTGCTGCTGAACTACTGCATAGGG
TGACTACCATTGCTCCTTTAGTTTAGTTTGGCTAGCAGAAGGTGGTCTTGCCATGTAAAT
AAAGCCTCTCAGGTAATCAAAATGTTTCTTTTTTACTTTTGCTGGTGTTTTTTCTTTT
CTTTTTTTTTCAGCTACAGGAATTTAGCCAATTCAGAGGAAATCTTCCCATAATTATGG
AATTTCTTACAGATTTTACCAAGTCTGGTCAACCAATAAGAAAAAGACTGAAATAACA
ACAACAACCTTCAACAAATAAAAAAACAGTTAAGCTAAATAAACAGATG

Sequence 2341

AGGTACTTCTTACATAGTGATTGATGTCTCATGTCTCCCTAAAATGTATAAAACCAAGCT
GTGGCCGGACCACCTTGGGCACATGTCATCAGGACTTCTTGAGGCTATGCTACTGGGCAT
GTCTTCAACCTTGGCAAAATAAACTTTCTAAATTAATTGAGACCTGTCTCAAATTTTGGG
GGTTCAAGGTGAGTGGGCTCAGGCATGTGCACTAGTATGACTAAAGGTCTAGACTATT
AGACTATTAGTCTATGACCTTCCCTCTAGAAACACTCGACTGGTAAGGGAAGAATGCCTCA
ACTGAGCATGTGCACAACTCCATAAACACACTTGTGCTTGCAGGAGCCTNTCAAGTGCTG
GCAGGCCACTGCTCAGGTGGATTCTTCCCTCCTACCCGGAGGGAAGAATCAGGGGAGAAG
GGACACAAGCCCCTGAATGCATGCCAACACGTAAA

Sequence 2342

CCGCGGTGGCGGCCGAGGTACCTTCAGGTATTGCCTATTTAATGATCATATATACTTGCA
TAATATCATCCCTTCCCTTGATTTCTTTCAATCTAAAAATAAATATGAGAAAAACAAAAA
AAAAAATAAAAGT

Sequence 2343

ACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAGGACTCAAGACC
AGATGGCCAACTAGAAGCAGCCAGGAAGAACATCTCTCATGGAGAGACCAGGAATTTGGG
AAGACTGGCACACTCTGAGCAGATCTTTTGAAGGAAAACATTGAGGGTGGATGAAGGGAG
GATGCAGAGCATGGGCTGAGGGGGCAGGAATCTCAGAAGCCTGCACAGGGCTTCCAAGCA
CTAGCATTCCTTACTAGCCCCCATTAACCTCTGGGGAAGGGGTGAGTTGAATAGGTGGNG
GAGTGGCCCCGCTCTTACCATGAACTCCAGAATCCTAGCAGCAAGAGACCCCATGACCCC
TGTGGACACGAGCTGTCCGGACGCGTGGGTGGAAGACCTGCCCG

Sequence 2344

CCGCGGTGGCGGCCGCTNNCTGCCCGGGCGGCCGCGCCGCACTTTTTTTTTTCTTTTTGG

TABLE 1

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AAAAATNTNNNGACTCTGGGGATAAAANTNCNAATTAATNNATNCNANNTTTTAAAGGC
TATTAANNANAANAATATTNGCTAAATTNNCCTTNTGCATAACAAACTGTGGNTNTACCA
TGTAANGTTTAAAAAATGTNTAACCNCAATTTTACGCTCCTCTGTNACANGACAAGGAC
TCCATTCAANTGNCATTTAAGAACTNAATGGGTTGAN

Sequence 2345

AGGTCAAGCTTCGACCCACGCGTCCGATAAGCCAAAAAATGGGAGACAATTCACATGGA
CTTTGGAAAATATTTTTTCTTTGCATTCACTCTCAAACCTAGTTTTATCTTTGACC
AACCGAACATGACCAAAAACCAAAAGTGCATTCAACCTTACCAAAAAAAAAAAAAAGTG
CGGCCGGCCGCACTTTGTTTCTACTGGGTTTAGACCGTCGTGAGACAGGTTAGTTTTACC
CTACTGATGATGTGTTGTTGCCATGGTAATCCTGCTCAGTACCT

Sequence 2346

CCGGGCAGGTACCTGCTCCATTTCTCCTGCAACATGTGGATACAGTAATATGATCATACC
CTCCCTTGTTCCCTCTAGGCCACTTTCCCTTTAAATATTAACACCATCATAATCATCT
TTGGAGAAAGACACCTGGATCTGTCTGAACCTTGGCAAAAAATAAATAAATAAATAAAA
ATAAAAACTCTTCTCAATTGATTAATACCTGTCACAGATACATTTTGGTTTACAAATCA
ATGAACAATGGAGGGAACCTCTGTCCTTAATCTTGGTACCT

Sequence 2347

CCGCGGTGGCGCGGAGGTCTCTTGTTGNTATTACACTTCTACGTAGATTATATAATAT
TGCTTGAGACATAATTTGATCAATAATATATAATGTCAGTCACTACAGTGATCCAGAAT
CTTATTCTGGCTATGGAGGAAGCTTAATTATTAAGCAACATCTTCCTAAAAAGCTTNTGA
ATTTCTGATTCAAGAAAAACAAACAAATGAAAAGAGTATCTNTAACTGAAATAACAC
TGAAGTTCGAGCTTGGGCCCTCTTTGTGTTCAACATAATTAACNTTCAAGATGAAA
CCGGACGCGTGGGTGGAAGCTTGACCTGCCCGGGCGGCCGGCCCGGGCAGGTGTTTN
TTCTGGGATATCTTTTTCTTCTGGGCAACCTCCTCTTCTGGTTTAGGAACAATCTGTTCC
TTTTCCGNAAGGATCATCTCAATGTGGCAGGGAGAGCTCAT

Sequence 2348

ACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTCTTCGACCCACGC
GTCCGGGCAATTATCAAAAAACCTTGAAAAAGATTTTATTCTACTTTTAAACATACA
TCAAAATCTAAATAAACTAGGCACCTTCAGCTGGGCCTGGTGGCTCATGCCTGTAATC
CCAGCACTTTGGGAGGCTGAAGTGGGCAGATCACTGGATGTCAGAAGTTCGAGACCAGCC
TGGCCTACATGGCGAAACCCCTNTCTACTAAAAATACAAAAATTAGCCGGGCTTGGTGG
TGGGGACCTGTAATCCAGCTACTCGGGAGGCTGAGGCAGGAGAATCACTTGAACCTGGG
AGGNGGAGGTTGCAGTTAGCTGAGATCACACCACTGCACTNCAGCCTGGGCCACAGAGCA
GGACTCCATCTTAGAACAAAAACAAACAAACAAACCTCATGCACCTTCAAGAAAA
TCAACAAGTTTTTATCTAATTAAGAAAGAATTTT

Sequence 2349

AACACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGC
GTNCGCTTTAACACACACTAGGCTCTTTGTGATTATGATNCAGTGCTATTTGTAAGTGT
GTCCAGNGACCAATTGCACTCGACTCGATCAGCTGTTTATCCATTTTCTGTTTTTCC
TGTCAAACATTAATCCAGCAAATATATGAGGTATTTACCAATTTATTTTCTTAGTATTAC
AAAATAATTCATTAGCATAAAGTACCTGCCCG

Sequence 2350

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTAAATCATAGAGC
TGCCCCAACATCTAGACAGTCTCTCCTACTGATTATAAATGAGTGAACCTATCAGTTAG
AAAAATCTAATTTAAGTTGTTAATACATGTTCTTTGGTGAGCACCTGGATATATTTATC
ACAAATCTTTTATACAAATGTCGAAAATGCTTTCAACAAACCTAAGTGTCTTAATTACA
TGCCACTTTTAAGCATCACTTTAAGGTAACAAAAATGAAAACCATAATTTTAAATTTAA
ATTTGCGGACGCGGGGGTCTGACTCAAGACCTCGGCCGCTCTAGAAGTAG

Sequence 2351

CCGCGGTGGCGGCCGCCGGGCAGGTGCTTCGACCCACGCGTCCGGATGGCTTGGGTGAT
CAGGACGTCCATTACATCCAAAGGAAGACAGCCTGTGACGTTTCAAAGCAAAAGTCCCC

TABLE 1
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TACCAGCCAGTGAAGCTACCTGATTTCTCAGTATCTTACGCCCAGNGACACGATCTACCC
TCAAAACTTAAAAAAAAAAAAAAAAAGGGAAACATAAACACATAACAGCAGACCTN

Sequence 2352

GGGCCGNGGNCACAACATTCCCCCTTCCCCAAACAGTAATATGGACACTGATTTAACANG
ACTTATAAAAAAATAAGGCNCATTTATTTTGATNTGGTAATTTTAAAATAGAAACCCCTT
C

Sequence 2353

GCGNGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTNC
GAGCTTGAGTCGACCCACGCGTCCGTGAAAAATGTTGTCTCCTTTCTAAATTCTCTGCCGA
TTTGGGAAAAAGCAAACCTTGACTTTACCCCGAGGAATTGGTGAAAAATTACTTTTACGCC
TTGCAGCTGTGGAACCTTGGTCTTACAGCCTCTGCTCTTCTGCCCAAACGGGCCATGCAGT
TTGGATCAAGAATTGCAAAAATGAAAAAATTAATGAAAAGGCATCTGATAAATGTGGAC
GGCTCCAAATCATGTCTTAGAAAAATCTTTCTATTGAAAAGGAGACTAAATTGTAATGTG
ATTCACAATGTAAACAATATAAAAAATAAGTTTTTATATAATTATTTAAAGGNAGATACTCT
GGTGCTTTACTATTGGATAAAATAAGTAAACCTGCCCGGGCGGGCCGGCCGACTTTTTTT
TTTTT

Sequence 2354

TCCCCGCGGTGGCGGCCGAGGTTTCAAAGACCNGCCTGGCCAACATGGTGAAACCCCATC
TCTACTAAAAATATAAAAAATCAGCCGGGCATGGTGGCATGTGCCTGTAATCCCAGCTACT
CAGGAGTCTGAGGAGGAGAATCACTTGAACCTGGAGGCAGAGGTTGCAGTGAGTCGAGGT
TGCGCTACTGCACTCCAGCCTGGACAACAGAGGGAGACTCTGTCTCAAAAAAAAAAAACC
TACAGCTGTTCAAGGACCAGCTGCAGGGNCAAGNGGGGGCCTTTTTTGGTCTTTGAACAC
ATCATAGAAAGNGGNCAAAATGCTGCAAAGCCATGAAGAACATGAACCTTTAACCGGGTAG
ACTAACTGCCCCACTTANACNCTTTTTTTTGGCCCCAAAAACAAGNTTGATTTTGGCCCT
TTTTTTTTTTTNTCCATTGGGGGGAAGTTTTTGAAAAANAAAANGGGGCCNCCCCCCCCCT
TTTTTTTTTNNNNCNAAAAANCCTTTTTTTTGGTTTTTTTAAAAAAAAAAAA

Sequence 2355

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGGCCAGAGACTTC
AAGTCTATCTGAAAAGTCTCCAGAGGTCTAACCCAGATAAATAGCCAACAGGGTGTAGA
GTACATTTTACACCCCAAAGAGTGTGCCCCATGGTGATGAAAATAAAGTGAACATGTTGC
AAAATGAAAAAAAAAACCT

Sequence 2356

CCGCGGTGGCGGCCGCCGGGCAGGTACCCAACACAACTATTCAATAAAGTAATCTGCT
TTAAAAATAAAACACACTGAAAGGCCGAGGCAGGTGGATCACCTGACATCATTAGTTCAA
GACCAGTGTGGCCAACTGGTGAAAATTAGTCTCGACTAAAAATACAAACATTAGCTGGG
CGTGGTGGCAGGCGCCTCTAATTCCAGCTACTCAGGAGGATGAGGCAGGAGAATCACTTG
AAGCAAGGAGGTGGAAGTTGCAGTGAGCTGAGATCGTGCCATTGCACTGCAGCCTGGGCA
ACAGAGTGAGACTCCGTCTCAAAAACACCACCACCAACAAAATAAACACAACAGAATTAT
TCTGCAAATACAGATATTGGAGTAGCTGAGTTNCATCTCAAATTTGACTATGCAGGTTGC
AGGGTGATCTTGGCCAACACTATTCTTTTNTGAAGTTCAACTTTTTT

Sequence 2357

CCGCGGTGGCGGCCCGAGCAAGTGGGCCTGTAGCCCGACTCTTAATCCAGGTTGGTGCTA
TTCAAAGAGATCATCTTTCACCCGAGGGATTCTGGGCATCTATTTTGGCGATCAGAAAG
TAGAGAAAGAAGGTAACCTTTGCTGAAAGCTAGTCTGGGGAGTTAGTAGCTGATACAGATC
AGCATTTTCTAACTATGAGATTTTATAATATTCTCTTGTCTCGATTCTGAGTCACTGG
TGCTGCTGTGGTGGCATTGTTTATGAACATGTACCTGCCCC

Sequence 2358

AGGTCATGTGCACATTGTGCAGGTTAGTTACATATGTATACATGTGCCATGCTGGTGCGC
TGCACCCACTAACTCGTCATCTAGCATTAGGTATATCTCCAATGCTATCCCTCCCGCCT
CCTCCCACCCACAACAGTCCCAGAGGTGATATTCCTTCTGTGTCCATGTGTTCTC
ATTGTTCAATTCCCACCTATGAGTGAGAATATGCAGTGTTTGGTTTTTTGTTCTTGCGAT

TABLE 1
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AGTTTACTGAGAATGATGATTTCCAATTCATCCACGTCCCTACAAAGGACATGAACCTTG
AGAATTCCTTAATGCAGTGCTTTAATACAGTAAAAATTTTTAGTCTTTGTTTTCTACAAAA
TGCATTTGAAAAGTGCACTCTTGATCTTGNATTTTCTTTCTTTCTTTAGAATCATATT
AGCAGTTGGACGTATATATAAAATATTAAAGTGTAACCTGCCCGGGCCGGCCGGTCTAGAAC
TAGGTGGGATC

Sequence 2359

AGGTGTACAAGCTTCGACCCACGCGTCCGAGCAGAACTTGGCAGCAACAGAGGAAGGGCC
CCTGGAGCCGGCTGTCGTGGATGCCTTTAATCAAGCCTGGCATTGGTTGCTCACGAATG
TCCAACTCTCCGCTAGGCCATCATGCTCAGGCTGCCAAGGCTTTTCTGTCACTCT
TTTGTCTCTCACACTGACCAGTCTTACCTGCCCGGGCGGCCGGCCGCCGGGCAGGTAC
CAAGTGAATTTAAATAATTGGTGTGGATTGGCCAGTAGCTAAGTGGGCTTTTAAAGAGTA
TTGAAGATTGAAAGGGTTTTCTTTCTTTTTAAAAAGAAAAACAACTATTGATTGTA
GATAATGAAAAGCTAGGGTTTGCCCTCTTCATGTCTACTCTCCTTCCAAATAGTTATATC
CAAACTGTTTTTCTNTCCCCTACCTTGTC

Sequence 2360

CGAGGTACACAGCTATGCACTTTCCGTTTCTGACTTTTGCCACCCTGTCAGCCATGGGGA
GCCCCTGTGGGACTGAAACCCTGAGCTGAATGCGGCCTCATGTCTCAGAGAAACACTGG
CAAGTTGGTCAGAGCCGCGTCTGCATCGAGGCGTAGCTGANCGGCAGGATGGGGGGCTGC
CTGCCCAGGGTCTCTCACCGTGGTGTAAGCAGAGCCATGGCTNGCGCTAGGACCCCTATAGA
TACCATCACTCTTTCTCAGCTCGACTGGAGTTTGACCTTTGACGGGGGCAAGTAACCTC
CTGCACCCTGAACCAACCCCCCATCTCTGTTTCATTTCAGCAGATAATGATGGAGGGGGGGG

Sequence 2361

CTATAGGGCGCAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTCAAGCTTCGACCCACGCG
TCCGCTATCATATTTCAAATCCTAATGGGAGACAAAACAAAAGTGATGGTCAGTATTTCT
TTGAAATTCTACAAGGAACTTCAGGCACATGGTGCTGATGAGTTATTAAGAGGGGTGTAC
GGGAGTTTTTTGTAATCCAGAATCAGGATACAATGTCTCTTTGCTATATGACCTTGAAAA
TCTTCCGGCATCCAAGGATTCCATTGTGCATCAAGCTGGCATGTTGAAGCGAAATTGTTT
TGCCTCTGTCTTTGAAAAATACTTCCAATTCCAAGAAGAGGGCAAGGAAGGAGAGAACAG
GGCAGTTATCCATTATAGGGATGATGAGACCATGTATGTTGAGTCTAAAAAGGACAGAGT
CACAGTAGTCTTCAGCACAGTGTTTAAGGATGACGACGATGTGGTCATTGGAAAGGTGTT
CATGCAGGAGTTCAAAGAAGGACGCGAGAGCCAGCCACACAGCCCCACANGTCCTNTTTAG
CCACACTGCCCGGGGGCCGNTTGAGGCCNCCCGCAGGGNNNGTNTNTAACANNGTA
ACATGTATTATGGNAACCTTTAATCTTGGGGGNNCTTANACAGCGCTNNTNCCAANGNTTA
ANNAAGNTTGNTTTTNAAAAAAAAAAAAAAGGGATGGGTNTTTTTNAAAAAAAAAAAAA

Sequence 2362

CCGCGGTGGCGGCCGCCGGGCAGGTACAGCCTCACATACACAGATGCAGGTGAAGTCACC
AAAGCTGATCTCTCATTCTGTTCTGGGGACAGTTAGCAGCGTAGTGGTCCCACTGCAGCAA
AAGTTTGAAATTCATTTCTTCAGGAAAATACCCAGCCAGTCTCTCAGTGGAAACCCTGG
TTATGTCGTGGGGCTCCCATAGCTGCTGGATTCCAGCCTCATAAGGGTGGAGCTCTCCC
GTGTCAGCTCGTAGCACAGAAGGTGAAGAGCCTGCTGTGGGGCCAGTGCTTCCAGATTAC
GTGGCCCCCTTTTGAAATTCAGGCCAGGACATGCTGGACTGGGTGCCATCCACTTC
ATCACCCAGTCATTCAACAGGAAGGATTCCTGCCAGCTCCCAGGGGCTTTGGTTATAGAA
GTGAAGTGGACTAAATACGGATCCCTGCTGAATCCACAGGCCAAAATAGTCAATGTAAT
GCAAATCTAATTTTCATCCTTTCTTTNCTGAGGCCAACTCAGGAAATGAAAGGGCGATTCTT
ATTTNCACTGAGNGGTACNTTTGNGGATGTGTCTGCACCTGCAGANGCAGGCTTTAAAGCT
TCANCAGNCATTAATGGCANGCTGGCCNTTAACCTTT

Sequence 2363

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCACTTTNTTTTTTTTTTTTTTTTTTTTTT

TABLE 1
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TTNNAAAAAAANTTTNAANGGGGG
AAAAAANNGGGNAAAAANTTNNGGGGNNGGNTTNAAAAAAANCCCCNNNNCNN
AAAAAANNGGNCCCCCGGGGGGGNNAANNTTNAAAAAANTTTNTNCCCCCCCCC
CCCCGGGGGGGGGNCCCCCCCCNNNTTTTTNNNNNTTNANNGGGGGGAAAAANNNNCCC
NGGGGGAAAAAANNAAAAAATTTTTCCGGGGGAAAAAANNTTCCCCCAAAAAA
TCCCCAAAAAANNGGNNGGGGNAAAAAANAAAAACNGGGGGGNCCCAAAGGGGGG
CCANCCNAAANTTTGGGGGGGNNNNNACGCCCTTTTAAANNANAAAAACNTNNGCC
CCNTTTTAAAAAAAACCCCCCCCCCGGGGGNGGGGGGTTTCCNAAAGGGCCCCCTTC
CCCTTTCAAAAAAAGGGGGAGNGNNNGGGGGGGGGGGGGGGTTTTTTTCC
AANANAAGGGGGGNTNTANTNTTACCAAAAAAANGGGGGAACCCNCAAAAAAATTTT
TNAAAAAGGCCNAANGGCCAANCCNAAAAAGGGCNGGGGGNGGGGGTTTAANAAAA
GNCCCCCCCCCGNGANAAAAAA

Sequence 2364

CCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCACTGAGTGTTACCATAATTT
GAGATTCTTGGCATGTTAACTTTTCATTATGGAATATTGAATAATTTCAATATTATTCAT
ACATTTCTTTATGTTCAAACATACACAAAAATAGAATAATGAAGTCTACCCATCACCCAG
CTGCAACAAATATCAATACTTTACCGTTCTTAATACATCTAACCCTTACTTTTTGTTTG
TTTCTTTTGGTGAAGTATTTAATTGTAATTTTTTTTTAAGAGACAGGATCTCACTCTGTC
ACCCAGGCCAGAGTGCAGTGGTACCTGCCCG

Sequence 2365

CGCACTTTTTTTTTTTTTTTTTTAATAACAAACACTTATCCAACACTTAGTATGTGGCA
GGCACTGTTTCAAGCACTTTACACATACAACTCATCCCGGACGCNTGGGTNNAAGCTNG
TNCACCNA

Sequence 2366

CCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGATTATTTCAAGCTCTTGA
CCTGTCCCCTCTGGCTGCCTCTGAGTCTGAATCTCCCAAAGAGAGAAACCAATTTCTAAG
AGGACTGGATTGCAGAAGACTCGGGGACAACATTTGTCCAAGATCTTAAATGTTATATTG
ATAACCATGCTCAGCAATGAGCTATTAGATTCATTTTGGGAAATCTCCATAATTTCAATT
TGTAACCTTTGTTAAGACCTGTCTACATTGTTATATGTGTGTGACTTGAGTAATGTTATC
AACGTTTTTGTAATATTTACTATGTTTTCTATTAGCTAAATCCAACAATTTGTACC
TGCCCGGGCGGCCGCGCCCGGGCAGGTACCCTAATAAAGGCAGCAAAATGCATTAATC
CACTATGAATGGAGTTTACATTTTAATTTATGCCTAATATTTATAAAGAATTTCAATC
ATAGGCTACTCAGATTGTTATCTGACGCTTACAGAAGTGGTAAACAACCAATTGCTAGT
TCAAGTAGTTTCTCATGACATCTAATGGTAAGCAAAATTAGTATGCATATTTCAACAT
CCCAGTNACCAATCTTTTTAAATGGA

Sequence 2367

CGAGGTGTCAAGCTTCGACCCACGCGTCCCGACTTTTTGTCTTAGACCCAGTTAGGGTCA
CCTTACAGTGCAAGTGGAAGAAAGCAGGACTGCTGAGAGGAGCTCAGGACCCATTTTCC
AGGACTATTGCTTCTAAACTTTGGAGAGCAGGAAAATAGATTCCCAAGTGAAAGAGGT
GGCAGAANTAAAAAAAAAAAAAAAAAAGT

Sequence 2368

CGCCCGGCAGGTACACAGTTCTGACTGCAATACCTTTTTCAGACTGCAAAGGGAGCTCAG
GATCCAGAAGTCATTAAGAAGACGGACGCGTGGGTGCAAGCTTGACCT

Sequence 2369

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTCAAGCTTCGACCCACGCGT
CCGCAGAAATACTGAAAGACTTTTGCCTAAAGTGGCATTATTGACTGCTGGTGTGATGCT
ACTGTAATGTGATAAATTATTAATTGTTGCAAGTGCAAAAAAAAAAAAAAAAAAAGA
CCTGCCGCGGC

Sequence 2370

CGCACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTAAAAAAGCCTCATTATCCTG
TAGTCCATTTTGAAAGTAAAGCCCAAGAAAGCAAAAGATGAAGGTTCTAAAGCTAGTTT

TABLE 1
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GACTGACCTCAGAGTCCTCGGCCGCTCTAG

Sequence 2371

TTCGTGATAACTTCTCCTAAGTGCCAGGCATTGTATTACATGCTGNGAGCACANAGATGA
ATAATANCAATAGGTTACANAAAAGATGAATTGATTGAGAGAAAAAGA

Sequence 2372

CGAGGTACCCAAAAGATATCACTGTGAAGGTTTGGATACACTGACTGAGGAAAAAAGAAG
GTCCTGAAAGCGTCTAGACAAAAAAGACTACTTGTAAAGTTGCAAGAATCAGAATGGCAT
TGGACTTCTCAGCTTTCTCATTAGAAGTTAGATCTGAAGCAATCTTTAAACTCGTGAGG
AAAATTAAGTCTAATAAATAATTTTCTTCTAGCCAAACAATCAAATGTGAAGCTAGAAT
AAGCATTTTCAGGTAAAAAAGTGCAGGCCGCGCCCGGGCAGGTACA
TAATATACAGAGGTATAATCTGTAAATCAATAATGTAAAGTGGGGAAGGGCAAGGTGGA
AAAGGAGTAGAATGCTTGTATGTGACTAAAATTATGTTGGTATCAGTTTAAATATATTA
TTATACTTTAGAATGCTATACCCATTCCACAGTAATCCCATAGTAACCAAAAAGAAA
ATATCTGTAGGATCACACAAAAGAAAATCAGAAGTAGATGCAAACCTTGCTACTACAGGAA
AAAAAAA

Sequence 2373

CGAGGTGTACAAGCTTCGACCCACGCGTCCGAAGAAGGCTCTCCTCTGTTCCAGGAGAAG
GAAGGGACAGATGAGAAGTCACTTCAAGTTCCAGAATACTCAGGAGCTGAACCTGTCAA
GGTTTAGATGTGGCAAAGCAGGCCAGGCATGGTGACTCATGCATGTAATCCAGCATTTT
GGGAGGCCAAGGCAGGAGGATCACTTGAGCCAGGAGTTTGAAAGCAGCCCGGGCAACAT
AGTGAAACCTCATCTCTAGAAAAAATACAAAAAATTAGCCAGGCGTGTGGTGTACCTG
CCCG

Sequence 2374

CGCGGTGGCGGCCCGAGGTACATCTGCAAGCTTTAAAGCAGTAGGTTTCAGACTTCCTGGA
AGAAGTACACTTGAAGCTGACTAGGGNCTACTTGANCNCATACTCACTTTGGCTAAGCC
ACAGTATGAGGGAAGGGTGTGAGGAATAACNCTTCCATTTTTATNTTGTTCATTCCCGAA
AATCCAACAGGAGATTCTTTTCACTCCCTAAATNAACTGNTCTGTGTATAAAGCATATC
TGGATATCTTGATCTTAAATGGAATGGTATNTGAAAANNGCNCNACTTTTCTAAACT
TAAAATTGGCCCTTTTTATTTTTAGCCCTGGGGGAGGAGGGAGGGAATGATTCCCAA
AACTGACTGGTTTCTTGTGTCAGTGTATTAACTGGTGATTATTTTTGGGGGGG
NAATTTAGCNGGAAAAAATTTTTTTCAGGGTTAAACGCGCCTNNTAAAAANTTGGGA
AATGGNCGNAAAAGGGGGCCCTTTTTTCCCGCGGNTTTGGGGGNAACCCCGCCCGG
TTTGAANGGTNAACNCCCTTTNAAAAAANAACCTTGNNTTCAAGTTTTTTTTTCC
AAAACCGAAAAATTTGGGAAGGTCTTTTTATATAAANCTTGGAACCCGCCCCCGGGTC
AAAACCCCGGNNNGCCGTTTTAAAAAATGGTACCCCGCCNTCCGNTTTCANAATT
AACTTTTTTNCCCCCNCTGGGGGGGGCC

Sequence 2375

CTACTATAGGGCGAATTGGGAGCTCCCCGCGGTGGGCGGCCCGAGGTCTTCGACCCACGC
GTCCCGAGAATAGCTACTGAAGTCCTAAAGAGCAAGCCTAACTCAAGCCATTGGCACACA
GGCATTAGACAGAAAGCTGGAAGTTGAAATGGTGGAGTCCAACCTGCCTGGCCAGCTTAA
TGGTTCTGTCTGGTAACGTTTTATCCATGGATGACTTGCTTGGGTAAGGACATGAAGAC
AGTTCCTGTCATACCTTTTAAAGGTATGGAGAGTCGGCTTGACTACACTGTGTGGAGCAA
GTTTTAAAGAAGCAAAGGACTCAGAATTCATGATTGAAGAAATGCAGGCAGACCTGTTAT
CCTAAACTAGGGTTTTTACCTGCCCGGGCGGCCGCGCCGGGCAGGTACCCAACACAA
ACTATTCAATAAAGTAATCTGCTTTAAAAATAAAACACACTGAAAGGCCAGGCAGGTGG
ATCACCTGACATCATTAGTTCAAGACCAGTGTGGCCAACTGGTGAAAATTAGTCTCGAC
TAAAAATACAAACATTAGCTGGGCGTGGTGGCAGGCGCCTNTAATTCATACTCAGGAGG
ATGAGGCAGGAGAATCACTTGAAGCCAGGAGGTGGAAATTGCAGTGAGCTNAAATCGTCC
ATTGCACTTGAACCTGGCAACAAAATGGGGACTCCGTTNAAAAACCCCCCCCCA

Sequence 2376

CCGCGGTGGCGGCCGAGGTATCACGAGCGGCCGCGCCCGGGCAGGTCAATCATAGAGC

TABLE 1
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TGCCCCAACATCTAGACAGTCTCTCCTACTGATTATAAATGAGTGAAACTATCAGTTAG
AAAAATCTAATTTAAGTTGTTAATACATGTTTCTTTGGTGAGCACCTGGATATATTTATC
ACAAATTTCTTTTATACAAATGTCGAAAATGGCTTTCAACAAACCTAAGTGTCTAATTAC
ATGCCACTTTTAAGCATCNNTTTAAGGGTAACCAAAAAATGGAAACCCTTATTTTNAATTA
AAATTTNNGGNCCCCGGGGTTTTANTTAANNACTNTGGCCNTTTTTNAAATNTGGGGNCC
CCCCGNNGGGGGNAAATTTTTTATATAAATTTTTTTTTNCCCCCCCCCCCCCTGGGGG
GGGNGCCCCCCCCCCCCNTTTTTTTTTTTTTTTTTTNNNGGGGGGANNAACTCNNCNCG
GGGGATAAANANANGGATAATNTTTTTTNTTNGGAAATNTTTTTTTTTTN

Sequence 2377

GCGAATTGGAGCTCNCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTAAAG
CACTGGTGCTCTTCTTAAGTGAAATGTTAACACAGGGCTCAATACATAAAAGAGAAAGTG
AAGTTGTTCCATTTGGGGGGTCCCATAGGGGCCTCATGTTCCCTAGGTGTTACCCCTT
CAGACACAGCATGCCTACAAAGNGGACNCGTGGGGTGAAGCACCTGCCCG

Sequence 2378

CTATAGGGCGAATTGGAGCTCCCCGCGGCGGGCCGAGGTCAAGCTTCGACCCACGCGT
C CGGTCTATTTTGATTNTGGGGGTNATCAGCATTATTCTTCAGAAGGGGACCTGTTTTT
TTCAAGGGAAGAAACACTCTTATTTCCAAACTACAGAATAATGTGTNAAACATGCTAAAT
AGTTCTATCAGGAAACAAANCACTGTNTTATCTCCGNAGGCTATTTGNTCAGAGAGGC
CTTTTGNTTAAATATAAATGTTTAAATATAAATGTTTGTCTGGATTGGCTATAACATGTC
TTTCAGCATTAGGCTTTTAAAGAACACAGGGTNTTGTATTCTTACTAAAGATATCAGA
GCTNTTAATGTTGNTTANATGAGGGNGANTGTNAAGTACCTGCCCGGGCGGCCGCCGCC
CGGNCAGGTCTTNGACCCACGCGTNCGGGCNATTATCAAAAACACTTGAAAAAGATTTT
TATTCCTACTTTTAAACATACATCAAAATCTAAATAAACTA

Sequence 2379

CCGGGCAGGTCTTCGACCCACGCGTCCGATTGAAGCCTCTCTGAAGTTAAACCCAACTAT
GTTTATTAAATGTGTGAAACTGAAAGTGGGCTAGGTTCTACCAAGGCTGTGGAACTCTC
CTACGAGTTCTGCTGATCAGGAAATTTAAGAATTTATCTTAAAAATGCAAGGAAAAAGA
CTGCCTTGCAATTGTGAATGCTGCTTTCAATCTCCTAGCACCGAGCCTGGCACTTAGGC
AGCTTTTCAAGTGGGTGAATGAATGACTGAATGAATGAATGAATGGCTCAGCTGAGGA
ATGTAACCTTTGGTCAAGACCT

Sequence 2380

CCCCGGCGGGTTGGGCCGGGCCCGCCCCGGGGCCCGGGTTACCATTAAATTATTACCAG
GAGGGTTNTTAATTCTGGTTAACCATTCAATTAATTGNTNAAAAGGTGGGGGGNAANGGG
CCAAAGGGTGGGGAA

Sequence 2381

TGGGAGCTCCACCGCGGGTGGGGNCCCGGGGGNCCCCNCCCGGGNNNNNAAANAANGGG
GGGNNTTTTTNNNNNAAAAACCCCTTTTTNNNNNNCCCNNTTTTTTTTNGGGAGTTG
GGGCCCCCTTGAAAAGTTTGGGAACCCCCCCCCCAANTTTTCCCTTAATTGGGAAAAA
TTTTGGGTTTTTAAATTTTTAAAAAGGGGGTTNGGGCCCCCAAAAAAAAAAAAAAAAAA
AATTTTTAAATTTTTAAATTTTTAAAAAAGGGGCCTTTTTGGGGGNTTTTTTTTTTTT
TTTGGGGAAAAAAA

Sequence 2382

AACTTTTTATTAATGCTTANGANACAGATTGACTTTCTTCGCAAATGACTGTTTTA
CTTTTCCTGAAGNAGGACATATATGCACTCTGATAAACTGCATTACAGCCTGCAGGACA
CCTTGGGCCAGCTTGGTTTTACTCTAGATTTCACTGGCGTCCCACCCCACTTCTCCACC
CACTTTTTCTTCACCAACATGCAAGTTCTTTCCTTCCCTGCCAGCCAGATAGATAGAC
ACGGACGCGTGGGTGNAAGCTTGACCTGCCCGGGCGGNCGCTCTAGAACTAGAGGATCC
C

Sequence 2383

AGGTGCGGCCGCGGCCGGGCAGGTACAAGCTTCGACCCACGCGTCCGCACAAACATTT
TTTCAATGTAGCAAAATCAAACCTAAAAAAGAAAGAAAGAAAGATGCCGAC

TABLE 1
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AGTGCGGAGTCTAGCCTTTTGTAACCTTCATATTGCACACTAGGACTATAAGCCATTGCT
AGCTCATTTTGAATTTTAACGTGTAATTTTGTGTTTATTTCTTTCTGTGGGGAAACAAT
GCTTGATCCACCAATGCTCTTTTAAATGTTTTATACTATGTATGTGTATATATATAAAT
ATCAAATAATATGTATGCACATATGTGTGTGTATATATCTATATGTATATACATA

Sequence 2384

TGGAGCTCCACCGCGGTGGCCCCGGGCAGGTCGAGCGACCGCACTTTTTTTTTTTTTTTT
TTTACCTGAAAATGCTTATTCTAGCTTCACATTTGATTGTTTGGCTAAGAAGAAAATTAT
TTATTAGACTTAATTTTCCTCACGAGTTTAAAGATTGCTTCAGATCTTAACTTCTAATG
AGGAAAGCTGAGAAGTCCAATGCCATTCTGATTCTTGCAACTTACAAGTAGTCTTTTTTT
GTCTAGACGCTTTCAGGACCTTCTTTTTCTCAGTCAGTGTATCCAAACCTTCACAGTG
ATATCTTTTGGGTACCTCGGCCGCTCTAGAAGTAGTGGGATCCCCGGGCTGCAGG

Sequence 2385

AGGTACTCATAGCATTTTTCCCCACATAGTCTTCAAATCTGCATTTATTTCAAATCT
GACCTTCATAACTCACTATACATGAATTGCTGGTATTGTCTTTAACTTGGCCAAAGAA
CAGTTTTCTGAGTTAGCTATTATTTCCACCATAAAATTGGGGTAAGATTGGCAAAAAA
AAAAAAAAAAAAAGTGCGGCCGCTCTAGAAGTAGTG

Sequence 2386

AGGTACTACCCATTTTAATTACACAGTAAACAGAAGCACGGGTAAGTGACATACTCATAC
TTTAAGCAATAAGAATTAGAAGAAACCATAGAAGCTTGGGGCCTTCTCTCTAGCTCTAAC
CCAAAGAAAATGAATTTTATTTTTTTTTTTTAAAGAAAACAGCATCAATCACTTAAGAT
TTTCTTCTCTTTTTTTTTTTTTTTTACACTTGCTTATTAGTATAGNATCTCGTTCCAA
AGCCCGGACGCGTGGGTCTGAAGCTTGACACCTGCCCG

Sequence 2387

AATTGGAGCCTCCACCCGCGGTGGCGGCCGCCGGGCAGGTCAAGCTTCGACCCACGCGT
CCGTCTTATTTTTACTCTTAGGCAATGCGGAATATCAATCCCAGCACAGCAAATCTCC
AAAATGTCAGGTAGGCTCTTATCTGATGTTTTAGCACTGGAAAAAAAAAAAAAAAAAAAA
AAGTGCGGGCCGACCT

Sequence 2388

CGGCCGAGGTCTTCGACCCACGCGTCCGAAATGACTGGTTATTTAGAAAAGAAGGATGTT
TAGAATAAAACAGGAAGTCCAAACATGTCATAAGTGGTTTGTGTATGTCATAATAAGGGA
TTATAAAAAGAGGATTTATGTGAAAAAATTTTATGTGATCAAGTTGTCTACAATTACAA
GGAAATTATTTATAATAGACGTTCTAGAGATCTATATTAATAAAAAAAAAAAAAAAAAAAA
CCTGCCCGGG

Sequence 2389

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTCAAGCTTCGACCC
ACGCGTCCGTCTGAACCTACACCCCGTCTCTTCACGGTTTAGACTTACTAAAATAAATAC
AAGGTGATTTTCATCTTCAGGTAGAGTGAAGCCTTTAATTAAGGCGTCACAGGTGCAGC
TATTCTACCTTAATGAAATGGGTAGTGATTTTCCACCATTATTTATTTCCGGTGATAATA
TGCTGCATATTCAAGTCTCTTGTAGTTATTTTCACCCAAAGTAGTTGACAATTTGATGCT
TCTGGTGATGTTTATGGCTTCATTTTATGTAATTTTTTAAGTAAGTTCCACTAGAAACAG
TTCATCTTATACCTTCAAAA

Sequence 2390

AGGTACTATAAGAACACATTAATTCAATGGAAATACACTTTGCTAATATTTTAAATGGTAT
AGATCTGCTAATGAATTCTCTTAAAAACATACTGTATTCTGTTGCTGTGTGTTTCATTT
AAATTGAGCATTAAAGGGAATGCAGCATTTAAATCAGAACTCTGCCAATGCTTTTATCTAG
AGGCGTGTTTGCCATTTTGTCTTATATGAAATTTCTGNCCCAAGAAAGGCAGGATTACA
TCTTTTTTTTTTTTAGCAGTTTGAGTTGGNGTAGGGGTATTCTTGGGTTATCAGAATAC
TCATATAGCTTTGGGATTTTGA

Sequence 2391

GTTCTGATTTCTTATTCTACAACAAGGGTCAGCCTACAGGCAAAACACATCCCATTGTCA
TTTTTTGTAAATAAAGTTGTATTGGAACATGGCCACTCTCATTTGNTTCTATTATTTA

TABLE 1
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TGGCTGCTTTCACCTACAACCTGAGTGGNTGCCACAGAACTGTATGGGCCTGCAAAGTC
TAAAATATTTACTATGTAGCTTTTTCTTTCTTTTGGAGACAGTNTGCCACTCTATTGC
CCAGGCTGGGAGTGCGGTGGTGTGATCATGGGCTCATTGCAGCCTCAAACTCCTGGGCT
NAAGCAATCCTCCCGCTCGGTCTCCCAAGTAGTTGGGACTACAGGCATGA

Sequence 2392

CCGGGCAGGTACCCAGTAATCACATAAATTCTGCAATCATCTGTTTATTTAGCTTAACTG
TTTTTTTTATTTGNTGAAGNTGTTGTTGTTATTTTCAGNCTTTTTCTTATTGGG

Sequence 2393

ACCGCGGTGGCGGNCGCCGNCAGGTCTAGCTTAGTCGACCCACGCGTCCGGGCTTAAC
TAATATTTGNNTGNGTGCTACTAACAGGATTATAATAAATTTGTCATCAGTGAAAAAAA
AAAAAAAAAAAAAGTGCGGNCCGNTCTANNACTAGTGGGAT

Sequence 2394

CCGGGCAGGTCAAGCTTCGACCCACGCGTCCGATTTGAGTTGACTTTTCTCACCTTTAA
CCTCTTTATATAGCACAGTGCAATCTGGCCCTACTGCCACTTCATCTGGGTTATCTGTAG
CTTGAGTTGTAAAAAAGT

Sequence 2395

AGGTACTGTTGTCTCATGTAATGCTAAAACTGAAATGGTCCGTGTTTGCATTGTTAAAAA
TGATGTGTGAAATAGAATGAGTGCTATGGTGTGAAAACTGCAGTGTCGTTATGAGTGC
CAAAAATCTGTCTTGAAGGCAGCTACACTTTGAAAGTGGTCTTTGAATACTTTTAATAAT
TTATTTTGATAAATAATATTGAAAAAAAAAAAAAAAAAGTGCGGCCTCGAGCGGCCGCC
CGGGCAGGTACAGGCACCTATAGAATTTAAAGGGGAGATTTCTTATTTTGATTCAATG
TATTAATAAGATTTTTAAACATATTTTGGAGAAATTGCTAAT

Sequence 2396

AGGTCCTAGCTTGAGTCGACCCACGCGTCCGATTTTTGCCTCCAGACTACAGATCAGAAA
ACTGAGACTCAGAATGTTTCAATTCCTTGTTTAAAGATCACAAAAGTGTGAGGTATAA
TGGAAGTGAATAAATAAATAAANGT

Sequence 2397

AGGTCAAGCTTCGACCCACGCGTNCGGAAAGTNTTCATTCTCCCTCTTTTTTTTTTTTTT
TTAGCAATTCAGNCATGTTTTGNCCTACAAGTTTTCCAGTATTGTATAGATAAATAAT
AATTTACNAGGCTGCCTTTGAGTATACTTAGACAAGAGACCTGCCCGGGCGCCGNTCTA
GNACTNGGTGGANCCCCCGGGCTGCCAGGNATTTCAATATNAAGNCTTATNGTTACCGN
GCGACCTACGAGGGGGGGG

Sequence 2398

CGGCCGCCCGGGCAGGTATCAAGTGCTTGGATTCTGAACTGNCAAAAGAAAAGTGCCTT
GCCCTCTGAAGTAAAAACCGAAATGAGNTTCTTAGGCAAATGTATTCATCAGCCAGAT
AAAAAAAAAAACCANNTAATGNGAGCCNTTAGTCACTGCT

Sequence 2399

AGGTACAAGCTTCGACCCACGCGTCCGATACGACTCACTATAGGGATCTACCTGCTTGAG
TCGACCCACGCGTCCGAACACATACAAAAGAATTAACCCACAAGCTGCCTCTGACAGCA
GCCTGTGAGGGAGTGCAACACCTGGCCGGGTACCCCTGTGACCCTCTCACTTTGGTTG
GAACTTTAGGGGGTGGGAGGGGGCGTTGGATTTAAAAATGCCAAAAGTTACCTATAAAT
AAGAAGAGTTTTTATTACA

Sequence 2400

AGGTGGCCGCACTTTTTTTTTTTTTTTTTTAAAGTTTGGGGTCTGTCAGGAGACAGA
GGCTTTTTGAATTCAGTGTGAAGAGAAGAACCCGAACCTTAAGACGGCAGATCCCTGAG
AGTCTTCTGGCTGTTTGAGCGGACGCGTGGGTCGACACCTGCCCG

Sequence 2401

AGGTACTTCAAAGTTATTTGCACATACACTGTTTACTTTGNATGTTTGCAGGATTAAA
CTTTGTATAATCTTTTGCAAAATTTTTTTTTCAGTATGCAANGCTTGCAAGATGAAAT
TAAACC

Sequence 2402

ACCGCGGTGGCGGCCGAGGTACAAGCTTCNNNCNACTCGTCCGAGCTTGAGTCGACCCAC
GCGTCCGCGTTNATGATTTTTAAACACACTTGAAATAAAAATGATTGAACTAAATTTTG
GTCCGGNGACATCATTNTGCACTGCATAGCCCA

CCGGGCAGGTACATCTCTATCAGAGCTTTTGGGTGACCAGGCACACTGTCAATGAGCAGT
AATACTTTGAAAGGAATCTTTGGGGTTTTTTTTGGTTGGTTTTTTGTTTGTTATTT
TTTTGTTNGTTTGATTTTTGTTTTGNTTTTTAGCAGNAGGCCTCAACAGNGGACTTAA
AATACTCAGTAAACCATGCTGTTAACAGATAAGCTGNCATCCAGACTTTGNTGTTCCATT
TCTAGAGCACAGAGCAGATTTAGCACAAATCTTAANGCTTTATGATTTTTCANAAATGGTA
AANTGACAGACTGGCTTCAA

NTTTTTGGGGGGGGGAAAAACCCCNACCCCNCCANANAGNCANGNAANAAGGGNTTTT
TNACANNNNAGGGGGGGGCANCCCCCAAAAAACNNNCNANGCANGAAGNANANNNA
CAAAACANGNANGNAAGNNNNCACGNGCTTTTTTAAAAATTTTTTNNNNGGGGGGG
GGCCCCCCCCAAAAAANGAGGACGNGGAGCCCCC

CTNCTATAGGGCCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTTTTTTTT
TTTTTTTTCTTTCTGTTCCTTGGACTAGATAATCTGAAATCAACTGTCTTCAGTTTTGC
AGACTCTGTGCCAGCTAAAATGTTCTGTTGAGCCCCAGAAGCTAATTTCTTTTCAGTT
ATTATGATTTTCAGCTTTAGAATTTATTTTTTAATAANNNCTACCTCTTTTTATAT
TCTCCATTGGNGAGACATTCACATACTTTCTTCAGTTTTTTTAGACGTAGTTTCCTT
GAGTNCCTNGAGCATATTTAAATAGTAGATTTAAAGGATTTGGCTAGTTACTCCACCN
CTGAGNTTCCTCAGGGAAA

CCGGGCAGGTCAAGTCGACCCACGCGTCCGCTTGTTTTGCTCTATCCCATAGGAGTTGGT
ATAGTTGTGTTTCCAATATCATTTACTAAAAGAAANANTNTCCTTTTTATTCTTCATTGA
CCAACT

ACTTTTTTTTTTTTTTTTTTTAGTCTTCTACTTTNAGGGTTTATTNACTGGCAGTTTT
CAGGTCTGNAAATACAAAAGGAACATAGACATNGGGTNTCTGCCNTTGAGNGCTCCNA
GTTTTGGNGAGGGACACAACACNTTTCAGGGGACAACCGTGGTACCTNGGCCGGTNTAAA
ACTAGTnnnnnnnnnnnnnnnnnnnnnnnnnnnnTCNATATCAAGCTTATCCGATACCGTTCTA
CCTNTGAGGGGGGGGCCCGGCACCCA

AGGTCAAGCTTCGACCCACGCGTCCGGCCTGGGACAGATCCTTAGTCTTTCCTTGACTTT
TATAGACCCAGAGGTGAAAGGCCAAATGTTTTGTAGAATGTCCTTAAACTTGGGTTTATC
TGAGGTTTCCTTGATTGAATTCAGGTTAGACATCTTTGATGGGACTGTCATAGAAGTG
ATGCTGTGTTCTAATTGCATCTTATCAGGTGACTTATGATTTCGTTTGNCCATTATTG
ATGCTGNTACTTTAGATCACTTGATTAAGGNGGTGTCTCGCCTGGCTTCTCCAGTGTGAA
ATTTCTTTTTCTTCT

AGGTAATTTTCTGCTTGCCCAAGAAACAAAGCTTCTGTGGAACCATGGAAGAAGATGAA
AATGAGACTGGCAAAGAACAATGCTGAATCTGAAGAAGATTTGGGCAAATAATCTGCAT
ACTTTTAATTGGGAATAAGATGGAAAATATGAATGCTAAATCAAATTTTTTAAAAAATA
CACCCGGACGCGTGACCTGCCCGGGCGGCCGCCGCACTTTTTTTTTTTTTTTTCAAT
ATTATTTATCAAAATAAATTTATTAAGTATTCAAAGACCACTTCAAAGTGTAGCCTG
CCTTCAAGACAGATTTTTGGCACTC

ACTTTTTTTTTTTTTTTTTTTTTTTTNGGNGGGGAGGAAGGCAAGGCACCTGGA
AAGACTNACAACANATATTGACCCTAGTCGTAAAGAAATCCATAATTGCCAGTAACACGA
CNTATTTAAGAACAGGAAAAGACNGACAAGGAAAAAGAGGGACTTTTTTAAAAAACATTA

TABLE 1
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CTAAAGAATTNGGACATAANAAGAGTGAAATTGACAAGGAAAGGAGGAGGGGGA

Sequence 2411

GAGCTCCACCGCGGTGGCTGGCCGCCCGGGCAGGTACATAATATACAGAGGTATAATCTG
TAACATCAATAATGTAAAGTGGGGAAGGGCAAGGTGGAAAAGGAGTAGAATGCTTGTATG
TGAATAAAATTATGTTGGTATCAGTTTAAAAATATATTATTATAACTTTAGAATGCTATAC
CCATTCCCACAGTAATTCCCATAGNAACCAAAAAAGAAAATATCTTGTNGNATACACACAA
AAGAAAATCAGAAGTAGATGCAAACTTGCTACTACAGGAAAAAAAAGCTATCAAAATAG
AAAACAATNATGGNGAAAAATAAGACA

Sequence 2412

CCGGGCAGGTGCCGCACTTTTTTTTTTTTTTTTTTTTTTTTTTTTATGGAAAAATATT
GTGATTATTTTTAATAGATTTACGGTATAAAAGAAAACTTTTATGATNCAATTTTGACA
GACTACTTTTCATAAAAAATTTTACTNTACATACAATGTATTGCAAATTTTNGGCAAC

Sequence 2413

NGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGATTTT
GTGAGAATGATTGTTCTTTCACCTGGGCTGTTTGAGAGCATAATTATGGTAATCATGAGA
TTAATGTTTCATGATTTCTACCTCCAAAGTGTGAAGACAAGTNAAACAATGNTTCTAAAT
TGTCTTATTTTGTGGCGGAGAAGATTACAATGGGCTATTAGTGCTACATTTGGTCAAAT
GTAATCACTTAAATAGCTTCTTGTCACCTTAACTAAAGCAGAATAAAAAACCCTGCCCC
GGGGCGGCCGCGNCCCGCCCCGGGCAGGTACCATTCCCGACGTTTGCAATGGTGGGAGTTG
GCAGGTGTG

Sequence 2414

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGCTTCGACCCACGCG
TCCGCTTCTCTTAGAATTTTGGGGAATTTGATAGTCCAGTGACTCCTACCCACTTTTGGG
TGAAGGACGATTTGGAATTTTGAAGTGTGGGGAGACAGGCCTGTGAAGTCCGAANGACTC
ACTTGGGGT

Sequence 2415

CCGGGCAGGTCAAGCTTCGACCCACGCGTCCGAAAAAAGTTTGTGGAGA
CCGACTGGGGGTGAGGGGCTGGCAGCAGGAGACAGATAACANGTTCNCTCAGAATGCAGA
GT

Sequence 2416

ANGTTTTTTTTTTTTTTTCANTGCTTCCCAAAGCTGCGGACATAAGGGTAGCTGANCTG
GACTCTGNCCTTGCTGAAGACTTGGAGATGTCTGAAGTCATAACTGGGGNGACCTCCTTG
GTCCAAAATGTGCTGCCCCCTATGAATTCACATCAGGAGTTGTAGGAGATGAGGTTAGA
GGGATGCTTGGGCTCATCTGGCTTCTTCAGCATAGCCCGACGCGTGGGTGCAAGCTTG
ACCTGCCCGGGCGCGCCGCGCACTTTTTTTTTTTTTTTTTTTTTT

Sequence 2417

CCGGGCAGGTTTTCTTATGAGTGGGAGGTGACTGATCGTGGAGGTGGATTTCTTATGAGT
GGGAGGTGACTGATCGTGGAGGTGGATTTCTTATGAGTGGGAGGTGACTGATCGTGGAGG
TGGATTTCTTATGATTGGCTTATCACCATCCCTCCTTGGTGCTGTTTTTGAACAGTGAG
TGATTTCTTGAGATCCGGTTGTTTAAATCCAGAGGCACCTNCCCCTACCCTCTAGCTC
CCATTCCTGCCATGTAAGACACCTGCTCCCCCTTTTCTTACCCCATGATTGGAAGCTTT
CTGAGGCCTCCCAGAAGCTGATGCCAGCCCTATGCTTCT

Sequence 2418

CCGGGCAGGTCTTCGACCCACGCGTCCGCACATTTTGATGGTCAGTCAATAACTTAAGCA
GNTACCAAAATACTAGGTATCCAAGGAGCGAGAGGTGGGCCGAGCATAAGAAACACATTT
CTNATGGCAGCTCTGCCAAAGCCCTGCAGAATCATTTACACATAGGTCTTTGGTTAGT
AGCCCTGGCACAGAACTGATCTTAAACAAATATTGTCTATAATCAAGTAGAGCAATG
CAATTAAGCAAGCAAGCAAGCAAGCAAGCAAGCAAGCAAGCAAGCAAGCAAGCAAGCAAG
TTTTGCTTGGCTGNGTGACCGGGGTTTCT

Sequence 2419

AGGTGTACAAGCTTCGACCCACGCGTCCGGGATGAGTTTGTATGTGTAAAGTGCTTGAAA

TABLE 1

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CAGTGCCTGCCACATACTAAGTGTGGATAAGTGTGGTTTATTAAAAAAAAAAAAAAAAAA
AAAGTTGCGGCNCGGCCCGCCGNCAGGTACTGGCGTGGATTCTGCATANTGGNGATCAC
ACGTTCCACCTCATCCTCAGTGAGTTCTCCCGCCCTCTTGGAGAGGTCAATGTATGCTTT
CNCTCAACACCACATGAGCATATCTTCGGCCACACCCCTTAATGGGCAGTGATGGCAA
GGCTATTTCCGCCG

Sequence 2420

AGGTATTCAACAAGGGCCCTGAGAGAGGGACAGGCAGCCCTGTGAATCTTGCTGTTCAG
CANAGACAGGANTCAGCACGTGTGAGGGCAGCAGGGAAGTCTTCCTGGAGGAGTGAGACC
TGGCGATGAGGAGGCACGGCAGGGAGGTGGAACAGGCAGGAGAGACTCTTCANGAATTGA
GGAGATAGAAATAGAGGACACTAAAGCCTTAGAGAGGCCAGGGGTGGTGGCTTGGCAGGAN
CATCGCTTGAGGCTAGGAGTTTAAAGCAAGCCTGGGCAACATATCCGAGACCCCATCT
CTAAACACAAAAATAAAAAA

Sequence 2421

CCGGGCAGGTACCCAGTAATCACATAAATTCTGCAATCATCTGTTTATTTAGCTTAACTG
TTTTTTTATTNGTTGAAGNTGTTGTTGTNATTTTCAGTCTTTTTCTTATTGGGGTTGAC
CAGACTTGGGTAAAATCTGTAAGAAAAGTNCCTAATTATGGGGGGAAGATTTCTCTTG
AATTGGCTTAAATNCCTGTTAGCTGAAAAAAAAAAAAAAAAAAAAA

Sequence 2422

CCGGGCAGGTCTTNGACCCACGCGTCCGAGCAAAATTCAACTAAAAATACAATCTGGATT
CCATAGCCAAGGGTTTTATTTACAATNTCCTAGTAGGAAGTCTTTATTTTAGCTTTCAAT
GTGTTGAACCTATAAGGAAATTTAACGTATACATGAGTATTATTTATGGAATGTGAAG
ATATACAGAATGGAAATGGAAAATAATGTTAATTCGTATTGACTTTGAGGAATCTTANAA
TCATGTAGCCCTGTTGCAACAAGAAATAGGGAACCTTCTGAA

Sequence 2423

AGGTCAAGCTTCGACCCACGCGTCCGGTTTGTGTTTTCTTACGGCAACTCAAAGCAAAG
AGCTGGAGGAGCCAGCCATTATAATTGCTTACTCTCATCGCTTAGCGCCCCAGGTGGGAT
GTGTTTCCAAAACACATTTTGTATTTATAAGGAAATGTAGTTAGGATTAATTTTATTGT
CCTAATTAGAACTCACATTTTGGTTAATCCTCAATTTCAATTAATAAAAAAAAAAAAAAAAAA
AAGTGCGGCCGCGCTCGACCTCGGC

Sequence 2424

AGGTGCTTCGACCCACGCGTCCGACTTAATTGAGAAGGTGGAATCCTCCTATCCCTGAAC
TCGGGGGAATGGAATCTCGCTGATCTTCAGGACTAGCTCCCTGATCATTCCAGCCCCCTC
TGAACAACAGGGCCCCCTGGAGATAGAAGTAGTCCTATTTACCCCCAACTACAACATTAAT
GGGAAAAAAGAAGCAGGAATTCCTGAATTTTATGACTATGACGTTGCCCTGATCAAGCTC
AAGAATAAGCTGAAATATGGCCAGACTATCAGGCCCATTTGTCTCCCCTGCACCGAGGGA
ACAACCTCGAGCTTTGAGGCTTCCTCCAACCTACCACTTGCCAGCA

Sequence 2425

AGGTACAACCTCTCTTTTTGGAGTTTTACTTGCTTCTATCAAGAAAGACAATTTTCCTG
TTTCCATGACGTTGGAGTTTGGCTCACTTCCAACAGGGAAAAGGAGTGTTTTTTTTTGT
TTGTTTTGTTTTCTGCTTCTTGAATGGTAGAGAGCAGTCTATAGCCAGAGACTCGTCC
CTAGGTAAGTAAGTGAATTGGGGTTTGTCTTGGTTAAAGTTAAGATTAACGACCAACTGG
TCTTAATTTCTCCTTACCATTAGAGCACTCAGTTATCATATAAATTGCGCCATTGTTTGT
TTTGCTAA

Sequence 2426

AGGTCAACCGCAGGGTCAAACGGAACACAACCCACTCTCAGGAAGACATCCCTAACACA
AATCCAGGGACTTTGTTTCTTAACCTTAAATTTGAAACACTTCTTGCTACCGGGATGG
GGGGTGGGGCTCAGCAGTTTGGGGAAACGGAGTGGGAGTCTTTTGCTGAACCGGACGCGT
GGGTGCAAGCTGGACCTGCCCGGGCGGCCGCGCACTTTTTTTTTTTTTTTTTTGGAG
AGTGGCTATTTCAATTAANATTTAATAGTTTTTTTTTGGACTAAGTAGTGAAAACTTTTA
TACTTAAGTGAACATTTGTCAAGGCTAAAAAAAGT

Sequence 2427

TABLE 1

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AGGTACATCCCACCTATTTCTTTCTTTAGCTAGAAAGGTATAACGTTAAACCCCTTTT
CCAAATAAAATGATTTTATTTAGAAAATGCCGGGCACTAAAAAAAAAAAAAAAAAAAA
AAGTAC

Sequence 2428

CCGCGGTGGCGGCCGAGGTACCTATTTTGTATATGTGAGATGTTTAAATAAATTGTGAAA
AAATGAAATAAAGCATGTTTGGTTTTCCAAAAAAAAAAAAAAAAAAAAAGTGCGGCCGGC
CGCTACCTGCCCGGGCT

Sequence 2429

AGGACAATGCTGTAGATAATGCAGCCCATGCAATACACCCAAGAACACTAGAGTCCTACA
CCCAAGTACAATATGATAAGCAGCCCTCTGCAAGTGGTGCTGGATACCACTAAGAAGTC
TACTGCAGCCATGTTGGTTATGATTTTCCATGCAGAAGGGTACAGTTAGTTCATATTTAT
GTATTGCACATAATCATGCTATTGAGCATTGATGCTATATTGTATTATGTAAATAATAAA
AGCCATGTACAGAGGGAAAAAAAAAAAAAAAAAAAA

Sequence 2430

CCGCGGTGGCGGCCGAGGTATTCGACCCACGCGTCCGTAGTTTTATCTTTGACCAACCG
AACATGACCAAAACCAAAAGTGCAATCAACCTTACCAAAAAAAAAAAAAAAAAAAAA
AGTGCGGCCGNTCTAGAACTAGTTGGATCCCCCGGGCTGGAGGAATTC

Sequence 2431

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTGAGTCGACCCACGCG
TCCGAGTCAAGAGAACAGCACATTAGTTCCAGAAGAAAGATGGAAATTCTGAAAACTGAA
TGTCAAGAAAAGGAGTCAAGAACAAATTCACAGTATGAGAAGAAAAATGGAAAAAACT
TTATTTAAAAAAGAAAAAGTCCAGATTGTAGTTATACTTTTGCTTGTTTTTTCAGTTTCC

Sequence 2432

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCTGTTCTGATTTCTTATTCT
ACAACAAGGGTCAGCCTACAGGCAAAACACATCCCATTGTCATTTTTTTGTAAATAAAGT
TGTATTGGAACATGGCCACTCTCATTTGTTTTCTATTATTTATGGCTGCTTTCACATTACA
ACCTGAGTGGTTGCCGCAGAACTGTATGGCCTGCAAAGTCTAAAATATTTACTATGTAG
CTTTTTCTTTCTTTTGGAGACAGTGTCCACTCTATTGCCAGGCTGGAGTGCGGTGG
TGTGATCATGGCTCATTGCAGCCTCAAACCTCTGGGCTCAAGCAATNCTCCCGCCTTGGT
CTNCCAAGTAGTTNNGGACTACAGGGCATGAGCCCNCCATACCCCGGNTAATTTT

Sequence 2433

CCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGAAAATGTTTTCTTTTTT
AATTTAAGGTTTAAATTCCTTTGCCAAATCAAAAAAAAAAAAAAAAAAAAAAACGNT
NGCNTGCCNGGCCGGCCGGCCGNNCTTACTTTTTTTTTTTTTT

Sequence 2434

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTCTTGAGTCGACCCA
CGCGTCCGATAAAACACCGCCTTCAGTGTAATAATTTTACATGGTATCTGAACAACATTT
ATCCAGAGGTGTATGTGCCAGACCTTAATCCTGTTATATCTGGATACGTGAGTATTTCC
TGTTCTTTTTTAATTAATACTCCTTGCCACCAACCTTTATGTGGTTCTAAGAAAATT
GCTGAAATACTTTCTTTATTGCTTTTGAGATTTTACATTATAATCATTAACTTACTTTC
TAAATTATTTTAAAAATATATAAATCACATGGATTAAAAAATTTTCATAACTTGAAAAT
TTTCTTTAGATTAAAAGCGTTGGTCAGCCTCTATGTCTGGGATGTTGGAGAAAACAATC
AAGGAGGCAAACCATTAATTATGTATACATGTCATGGAATGGGGGAAACCA

Sequence 2435

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTTTTTTTTTTTTTTTTTAAATG
GTTAAGCTACTCAAATTGTTTTAGAGCCAGAGTAAAAACCAAAAAAATACTCATCAAT
ATCAATTGCCAAATTCAGTCTGAAAACATTTACACACAGCTTACCCAAGTATAAGCTG
CTGGGGGGACTTCTGAAAANTTGGCAACATTCATTNNGGGGCTTNGAAATGCTTTACAAGG
GGAAGGNTTTTTTAANGCAGGGCTTACNTGGGTTTTCCCCCAAGGCCCTGGNNANGTTT
NCCNAAAATNAAAGGGGGGGGGCCCCCCTNGNNGNGGGTTTTTCCCCNNCCNCCNNAN

TABLE 1

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CATNANGGGGNGNGCCCCNCNCNNTTTTTNTTTTTAAAGGGGNAAANTTTTTNCGNGNN
TNTGAAAAAAGGGTTTTTTAAAACCCCGGGGGGGTTTNTNTNNTTTTTTAAAAAATA
TTTTTAAAAAGGGGGGGGGGNGNTGGGNNTTTTTNTGGNGGGGAAAANNTNTNACACCCC
NNTAAAAANGGGGTTTTTNCNNATTTTTTTTTNCCNCCCCAAAANANGGGGGGGGGG
GGGGGGG

Sequence 2436

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTCATTTTATTTTAC
GTTGTTACGATATGGGAGTAGTGATTGAGGTGGAGTAGATTAGGCGTAGGTAGAAGT
AGAGGTTAAGGAGGGT

Sequence 2437

TNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGC
GTCCGGCCTGGGACAGATCCTTAGTCTTTCCTTGACTTTTATGACCCAGAGGTGAAAGGC
CAAATGTTTTGTAGAATGTCCTTAACTTGGGTTTATCTGAGGTTTCCTTGTGATTGAAT
TCAGGTTAGACATCTTTGATGGGACTGTCATAGAACTGATGCTGTGTTCTAATTGCATCT
TATCAGGTGACTTATGATTTCTGTTTGTCCATTATTGATGCTGTTACTTAGATCACTTG
ATTAAGGTGGTGTCTGCCTGGCTTCTCCAGTGTGAAATTTCTTTCTTCTTTGTAATATT
TTGTGGGGGAAGTAACTTAAGACTATGTAAGTGTTCATTTCTTTCTTTCTTTTGA

Sequence 2438

TACTATAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAGCTTCGACCCAC
GCGTCCGAAAGATTCTTGGCTGAGCATGGTGGCTCATGTCTGTCATCTCAGCAATTTGGG
AGGCAAGGGCAGGAGGATAGTTTGAGCCCATGAGTTTGAGACCAGCCTGGACAACATAGT
GAGACCCCATCTCAGCAAAAAAAAAAAAAAAAAAAAAAAAAANGTGGCGCCGGCCGC
CCGGCAGGTACATGACTATATCAGGATTTCAAATTGAGGAAACCATTGACCGCGAGACT
TNTGGCAATTTANAGCAACT

Sequence 2439

CCGCGGTGGCGGCCGAGGTACCTATTAAGCTCATGAACCATAGAGGTATCTCGGTGGCCC
CTCATTACCATCTGCTGTTCTTTCAGCTGTTTAGCTACATCTTTGGCTGAGGAACCAGAC
ACTTCAATCCATGTCTTAGAGAAGAATGCACATGACCCCAACATGAAGATGATATAAACA
ACGACATGGACAG

Sequence 2440

TNCTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGGCCGCACTTTTTTTTTT
TTTTTTTTTGAAAATAGTTTATTATTTATTGTTTTTTGTTTATACATGTTAAGTTTCAA
CTTTCAATAATAAAATTCATAAATTTGATTCCTTAATCATAAAAACCTTGCTTTACA

Sequence 2441

CTATAGGGCGNTTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTCAAGCTTCGACCC
ACGCGTCCGATAATTTATACTAAATTTAGTAAATGGACTTCTTATTCAAAGCATCAATA
ATTAAAGAATTATTTTAAAAAAAAAAAAAAAAAAGTGACCT

Sequence 2442

GGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGACAAGCTTCGACCCACGCGTCCGCTT
AATAGCAAAGGATAATTGAAATCCCAAACCTTACAAGGTTTTCAACAAAAGTGAAGTTTGC
TTAAAGTTAACAGTGTAACATGTATTATGGTAACTTCTAATCTTGTGGCCTTAGACAGTC
TAGTCCAAAGGCATAAAGAAAGTTTGCTTTAAAAAAAAAAAAAAAAAGGAATGGTTATCTTCA
AAAAAAAAAAAAAAAAAGTGGGGGGAGACAGAATTTATGTAAAAAGAGTGTTATATGGTAAATT
CTTGTCCTGAAATAAACTAACTGGTGTTTAAAGAAAAAAAAAAAAAAAAANGT

Sequence 2443

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTT
TTTTTACCTGAAAATGCTTATTCTAGCTTCACATTTGATTGTTTGGCTAAGAAGAAAAT
TATTTATTAGACTTAATTTTCTCAGAGTTTAAAGATTGCTTCAGATCTTAACTTCTA
ATGAGGGAAAGCTGAGAAGTCCAATGCCATTCTGATTTTGGCAACTTACAAGTAGTCTTT
TTTTNNNTAGACCTTTTTCAGGACCTTTTTTTTTTCTTAAGTCAGGGGGTTTNCAAAAC
CTTTCNAAAGGGGNTTTTTTNGGGNNCCTGGGCCGTTTTTAAAAANTAGGGGGGAN

TABLE 1
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CCCCCCCCGGGGNTGGGGGGGAATTTGATNTNAAAGTTTTNTNGATCCCCGCCCCCNTGG
GGGGG

Sequence 2444

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT
TTTTTTTTGAAATGTTTGAAGTTAACTCATTTTATTTCTAGGATTGGATTTCACATTT
TAATTTCTTTGGAATATAAGTCACTTTTTGCAAGCTAAAAAATAGAATCAAATAAGGTG
ATCTAAGTCCTCTAGGCATCCAGGCTGATCCTTGGAATCATGAGCAGAATGATGACATAC
TACANGGGGCTAGCAATACCGGNTNTAACTNTTAAATAATANCCCTNCATGGTTTTATT
AGGGAACCAGCCAAAAGTCCCGNCCCTTTTAAACTNNGGGGGANCCCCGGGCTTNNNGG
GANTTCGATATTNAACTTTTTTNGAAACCCGCCNCCNCCNNGGGGGGGGGCCCCGGGCC
CCNACNTTTTTTGTTCNTTTTTAANGGGGGGNNNNAAATTCGCCCCNCTGGGGGGGAA

Sequence 2445

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTATTGGTATTTAGTTTTATTTTATAATCATAAACTTAAGTCTGCAATCC
AGCTAGGCATGGGAGGGAACAAGGAAAACATGGAACCCAAAGGGAAGTGCAGCGAGAGCA
CAAAAGATTCTAGGTTNNTGCGAGCAAATGGGGTNGGNGGGGNGCTTNNNTTGGNTAAAN
AAGGGATGNNNTTGGGGGTTTAAAAAAACCCNNGGCANNCTTTTTTNGGGTNNNCCCCN
ANCCCCAANNNGGGGGGNNNTTTTTGTGGGGGGGGTNGNNTNTTTTTGGGGGGACNCAAAA
ANGNNNTNTTGGNCCCCNAAAAAAAANTTTAANGGCNTTTTTTTTTTTTTNTAAAA
AAAANNNAAGTTNNNTTGGCCNANNNCNCCCTNTTTTTTTTNGGGGGGNGGNGAAAA
AAAAAANNNGNNGNCCCNNTTTTTNNNGGGGGGGGCCNAANTTTTTNTCNNTNAAA
AAAAAATCTCCCCC

Sequence 2446

CCGCGGTGGCGGCCGCCGGGCAGGACACAGGAGGCCTTATTACTTTTAAATTATACAAC
ATTTTTTGCTTAAATTTTTTTAATAAAATTTTTCTTTTATGACTTTTGCAGACAATTT
TTTAAACATGTTTAACTTTTTGACTTATTACAAACATTCTTTTCTTAAACAACAGTT
AATTTATTTAGGACAAGAATTTATCATATAACTCTTTTTATATAAATCTGCCTCTCCC
CTTTATTTTGAAGATAACCATTTGTTTTTTAAAGCAAACCTTTCTTTATGTGTTTGAAT
AGACTGTCTAAGGCCACAAGATTAGAAGTTACCATAATACATGTTACACTGTAACTTTT
AGCAAACCTTCACTTTTGTGAAAACCTTATAAGGTTTGGGGATTCAATTATCCTTTGCT
ATTAATAAGACCTTGTTCACTCTAAATTAACCTAAA

Sequence 2447

NCACTACTTAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCAC
GCGTCCGGGAGAATTACCCGAAAAACAACCACACTGCTTCAATCCTGGACAGGATGCAGG
CAGATTTTAAAGTGCTGTGGGGCTGCTAACTACACAGATTGGGAGAAAATCCCTTCCATGT
CGAAGAACCGAGTCCCCGACTCCTGCTGCATTAATGTTACTGTGGGCTGTGGGATTAATT
TCAACGAGAAGGCGATCCATAAGGAGGGCTGTGTGGAGAAATTTGGGGGCTTGGCTGAGG
AAAAATGTGCTGGTTGGTAGCTGCAACANCCCTTGAATTGCTTTGTGAGGTTTTGGG
AAATTGNCCTTGGCCTGCTTGCCTCGTGAAGAGTTTAAAGTNNCTTCCNNAGGNTNA
NNTAAGGGTNTCTTNGGTCTTTNTNANNNCCTTCNTTANTTTGGGGGGNG

Sequence 2448

ACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTGCCGCACTTTTTT
TTTTTTTTTTTTTTTTTGAATTTAGCCACTTCTCAGGCCTTNTCCCCATAATTTG
GAATTTCTTTGGATTTGATCAAGTTGGATAGAGTTGATCAAACCCTGATCAAGTTGGA
TAGAGTTGATCAAACCAATGGGAAAAAGACCAAAACAATAAAAAACAGACAACAAC
AACAAAAACAGTTAGGCAAAACAACAATGGCACAATTTATATGATAACTGAGTGCTCT
AATGGTAAGGAGAAATTAAGACCAGTTGGTCGTTAATNTTAACTTTAACCAAGACAAACC
CCAA

Sequence 2449

TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTACAAGCTTCGACCCACGC
GTCCGCGAAAGCGAAGAAGGAAGCTCCTGCCCTCCTAAAGCTGAAGCCAAAGCGAAGGC

TABLE 1

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TTTAAAGGCCAAGAAGGCAGTGTTGAAAGGTGTCCACAGCCACAAAAAGAAGAAGATCCG
CACGTCACCCACCTTCC

Sequence 2450

CCGGGCAGGTACTTTTTCTAATATACTTTTCNATTACACATGAAAGCCATGACAGGAACT
GAGATAAGATTTCTTTGTTTTTGAACATCTTATCTACTAANAAAATTTNNAAAATCAT
TTNACTTNAAAAGCTATTAGTAGTTTTATACTCNCCTTAATAAGTATTAATAAATTTACATA
CTNGACTTAGTAANCTAAGCAATTTGGNTAACGNTNTTNTTATTNGAGNGANTTTTTGC
CANTTGGATATTTTTNCTACCTTACTATTACNTTATAAATATATTTCCCAAATATATCN
TTCTCTTTAAAAANTATGTTTTGNCAACNAACCTTNAAA

Sequence 2451

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCAAAGTTATTGCAC
ATACACTTGTTTACTTTGTATGTTTTGCAGGATTAACTTTGTATAATCTTTTACAAAA
TTTTTTTTTTCAGTATGCAAGCTTGCAAGATGAAAATAAACCTGTTGCCTGATAAAAAA
AAAAAAAAAAAAAAAAAAAAATGT

Sequence 2452

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAGCTGATTACACCAACTT
GAATGAAACGACTTCTCTTGTGAACATCAAGGGGCGCCAGAATCACCTCTGCAAGTAT
TGGGGTCAGCATAGGGACTCACTCCTCCAGTACAAAGGAACCGAGGGGTGACCACCTCTG
AGATGTCCTTGACTTTGTCATAGCCTGGGGCATATTGAGCATCTCTCTCACAGCTGCCTT
TCTTATCCCCATTCTTGATGTAGACCGGCCCGCCGGGCAGGTGCACATACACCAAATGTC
TGAACCTGCGGTTCTCTCGTACTGAGCAGGATTACCATGGCAACAACATCATCAGTA
GGGTAAACCTAACCTGTCTCACGACGGTCTAAACCCAGCTCACGT

Sequence 2453

CCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTTTAAAGAAATAGGGTCTCACTCTGT
CCCCAGGCTGGAGCCATTATAGCTCACTACAGCTTCTGACTCCTAGGCTCAAGGGATCC
TGCCACCTCAGCCTCCCTGGTAGCTGGGACTATAGGCAGGAGATCGCTTGAACCGGGAGG
CGGAGGTTGCTGTAAGCTGAGATCGCGCCATTGCTTTCCAGCCTGGGTGCCAGAGCAAAA
CTTTGTCTNAAAAAAAAAATTNTTTTTTTTAATTAATAAAAAGGGNCAGGGGATTTTTT
GGGAAAAGGTCNAAAAAATAATTGNNCTTTTTGAAAAANCCTTGGNAAAAANCCAAAAA
AAAAATTNGGNGGGAAAAAATNNTTTNNTTNGGGANAAAAAANAAAAAANNT
ANGGGGGGGGTTTTTTTTTNGGGGNGNGGGGGGGGGNAAACNCAANCCCCCCCCNNTT
ANAAAAAAAAGGGNGCCCCCCCCCNGNGGNAANGNGNTNTTNTAATTTTTTTTT
TTTNNCCCCCCCCCCCCCNGGGGGGGGGGGN

Sequence 2454

GAGACACAGTCTCACTCTTGCCAGGTTGGTCTAAACTCCTGGGCTCAAGCAATCCTCC
CGCTTTCAGCCTCCCAAAGTGCTGGGGTTACAGCCGTGTGCCACTGTGTCTGGCCCTTTT
CTTTTTCATAGGAGAAGGGTTGTTGACTCCCAGGAAACGTCACCTGGAACCAAGAATGTG
AACTCAAGGACCCCGCCTGTTGGCAGCTGCATTTACTTGACTCCTGTTCACTGTTTCTT
AGCCTTGTCCTTCTCTCCTGCCAGTCTAGGGGACACTGCTTCTCCTGGTTGACCTCAT
CAATGCC

Sequence 2455

CCGCGGTGGCGGCCGAGGTTTCAAGGACCAGCCTGGCCAACATGGTGAAACCCCATCTCT
ACTAAAAATATAAAATCAGCCGGGCATGGTGGCATGTGCCTGTAATCCCAGCTACTCAG
GAGTCTGAGGAGGAGAACTCACTTGAACCTGGAGGCAGAGGTTGCAGTGAGTCGAGGTTGC
GCTACTGCACTCCAGCCTGGACAACAGAGGGAGACTCTGTCTCAAAAAAAAAAACCTA
CAGCTGTTCAAGGACCAGCTGACAGGTCAAGTGTGGCCTTTTCTGGTCTTTGAACACATC
ATAGAAAGTGACAAATGCTGCAAAGCCATGAAGAACATGAACTATAAACGGGTAGACTAA
CTGCCAGCTTAGACACTTATCTATGCCACAAAACAGCTGAATTTGTCACATTTATATAT
TGCAATAT

Sequence 2456

AGGTCTTCGACCCACGCGTCCGGTGGCTTATGCCTGTAATCCCAGCACTTTGGGAGGCCG

TABLE 1
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AGGCAGGCGGATCACAAAGGTCAAGAGATGGAGACCATCCTGGCCAACGTGGTGAAACCCC
ATCTCTACTAAAAATACAAAAAGTAGCTGGGCGTGGTGGCACACGCCTGTAGTCCCGGCT
ACTCGGGAGGCTAAGGCAGGAGAATCGCTTGAACCTGGGAGGCGGAGGTTGCAGTGAGCG
GAGACCACGTCGCTGCACCTCCAGCCTGGTTGACAGACCGAGACTTCTTTTCAAAAAA
AAAAAAGTGCAGCTGCCTNGGCGGNCGGTTAAAAAATNGTGGATTNCCCCGGG
CTGNAGGAATTTTCGATNTTCAAAGCTTTATTNNATTACCGTNCGACCTTTNGGGGGGG
GCCCCGTACCCCAACTTTTT

Sequence 2457

CTATACACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGA
CCCACGCGTGCGCAATTTTAGGCCCACAAGGAGTCAAGCACCTCAAGGAGATCTTCAGT
TTGAACCTTGGTGTAGACACAGGGATACTGATGAATCAATATTCAAATTAGCTGTTACCTA
CTTAAGAAAGAGAGGAGACCTTGGGGATTTGAGGAAG

Sequence 2458

GCTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTAGAGTCGGGAT
GCACAACTTCAACCACCGACTTATCAATGCAGCCGCTGTGTATTGCAATTGGCCGTTAC
CTTAAGCACTGAGCCACCCGGGTTTAGTTTCAGCCATTTCAAGAAGTATATTTAACGTCGG
TAGTTCTGCTTTATTAATGAAATGCAGCAGAGGTACCTGCCCGGGCGGCCGCGCACTTTT
TTTTTTTTTTTTTAAATGAAATTGAGGATTTAACCAAAATGTGAGTTCTAATTAGGACA
ATAAAATTAATCCTAACTACATTTCTTATAAATACAAAAATGTGTTTTGGAAACACATC
CCACCTGGGGCGCTAAGCGATGAGAGTAAGCAATTATAATGGCTGACTCCTCCAGCTCTT
TGCTTTGAGTTGCCGTAAGAAAAA

Sequence 2459

CCGCGGTGGCGGCCGCTACCTGCCCGGCGGCCGCGGCCGCGGCCGAGGTCTTCGACCCACG
CGTCCGAACTAATTGGCTTTTAGAAACACCCACAAAAGCTCAGAAATTGGCTTTAAAA
AAACAACCACCAAAAAAATCAATTGGCTAAAAAAGTGGGCCG
TCACCT

Sequence 2460

ACTACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCGGCCGAGGTCTTCGACC
CACGCGTCCGGACAGCTCGTGTCCACAGGGGTGATGGGGTCTCTTGCTGCTAGGATTCTG
GAGTTTCATGGTAAGAGCGGGCCACTCCCCACCTATTCAACTCACCCCTTCCCCAGGAGT
TAATGGGGGCTAGTAAGGAATGCTAGTGCTTGAAGCCCTGTGCAGGCTTCTGAGATTCC
TGCCCCCTCAGCCCATGCTCTGCATCCTCCCTTCATCCACCCTCAATGTTTTCTTCAA
AGATCTGCTCAGAGTGTGCCAGTCTTCCCAAATTCCTGGTCTCTCCATGAGAGATGTTCT
TCCTGGCTGCTTCTAGTTGGCCATCTGGTCTTGAGTCTTGTACCTCGGCC

Sequence 2461

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTTTTT
TTTTTTGGGTTTCTCTTTGAAAGNTTATTGNTTTCTTTAAAAAAGTGGGCCG
TTTATATTTTACATTACCTNTCANAATATTTAATGGNACCTGCCCG

Sequence 2462

ACGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGAGCAGGAT
TACCATGGCAACAACACATCATCAGTAGGGTAAACTAACCTGTCTCACGACGGNCTAA
CCAGTAGAAACAAAGT

Sequence 2463

ACGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTAAAGTTA
TTTTAGTCATGAAATTTTATATGCAGAGAGAAAAAGTTACCGAGACAGAAAACAAATCTA
AGTCGA

Sequence 2464

CTACTTAGGGCGAATTGGAGCTCCCCGCGGNGGCGGCCGAGGTTTCAAGACCAGCCTGGC
CAACATGGTGAAACCCCATCTCTACTAAAAATATAAAAAATCAGCCGGGCATGGTGGCATG
TGCTGTAAATCCAGCTACTCAGGAGTCTGAGGAGGAGAATCACTTGAACCTGGAGGCAG
AGGTTGCAGTGAGTCGAGGTTGCGCTACTGCACTCCAGCCTGGACAACAGAGGGAGACTC

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CTACTTAGGGCGAATTGGANCTCNCNCCGGGCGGGCGGCCGAGNACTTACACNCNNGCN
ATCGNTTTCNTGNCNGCAGNNGGATNCACTAGTTNTAGCTTCGGNCGCCACCGNANCCNN
CNGGAGCATGCATGGAACACATATACCAAACATCTTTCTGATAACATTAAACATTTTTAA
AAGATGTTAAATGTTCTTTCTATTGTGGTGCTTCAGATTCTGATTCTAGAACTTGTGTG
TGTGGAACCTGTGTCTAACTATTCTGTTGGAATTTACCAGCAAAGAATTATCTAAGAAT
TTTCAAACATAATGATGGGGGGAAGGAACTA

TABLE 1

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Sequence 2473

CCGCGGTGGCGGCCGCACTTTGGGGTTTCTCTTT
GAAAGNTTATTGNTTCTTTAAAAAATAAACCTATACCTTTTATATTTTACATTCA
CCTCTCANAATATTTAATGGTACCTGCCCG

Sequence 2474

CCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGATCCTCTTCTGCTGTTCTG
GAAAGAAACAGACCACTGGTATGGAGTATAAGAAAAGTATGCACCTCAACCGGATGTGA
AGGAAGAGGAAGAAGAGAAGGAAGAGGAAAAGGACAAGGGAGATGAGGAGGAGGAAGGAG
AAGAGAAACTTGAAGAGAATCATGCTGTTGCATTTAGAACTTTCTGCTTTGCACAGGAAA
GAGTCACACAATTAATCAACATGTATTTTTCTCTATACATAGAGCTCTATTTCTCTACG
GTTTTATAAAGCCTTGGGTTCCAACAGGCAGTAGATGTGCTTCTGAACCGCANGGAGC
AAACACTGAAATAAATAGTTTAT

Sequence 2475

CGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTNNGTATTTN
AGNANAGATGAGGTTTACCCTGTTGACCAAGCTGGTCTCGAACTCCTGACCTCAGGTGA
TCCACCCACCTCAGCCTCCCAAATGCTGGGATTACAGCGTGAGCCACCANGCCCGGCCA
ATTTTTGTAACTTTTACAAAGATATTTAATTTAAATTTGATTTTAATAAAAGGTAGACAT
CCAAAACACAGGATGATGAATGCACCTCAATGTTAGGGGAATATC

Sequence 2476

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTTACTTTAAACAAAAAA
TGTTTACTTNTAAGGATATACGCACAAAGGGGAACATAATATACAGATAAATGAGAAGTTT
CGATTCTGCATCAAGCATTATTCAATCGGACGCGTGGGTCGAAGCTTGTAACCTGCCCG
GGCGCCGCTCGAGGCCGCACTTTTTTTTTTTTTTTTTTTTGGAGACGGAGTCTCGCTCTGT
CACCCAGGCTGGAGTGCAGNGGCGCAATCTNGGCTCACTGCAACCTCCACCTCCAGGTT
CAAGTGATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGATTACAG

Sequence 2477

CTAACTATAGGGCGANTGGANCTCNACCGCGNGGNGGCGGCCGNGGNCAAGGCTTCGACC
CACGCGTCCGNAAAAATTANCCAGGTGTGGTGGCACACTCCTGTAATCCCAGCTACTCAG
GAGGCTGAGGCAGGAGAATCGCTTGAATCCAGGAGGNGGAGGTTGCAGTAAGCCGAGAAC
CTACTGCACTCTGGCCTGGGCGACAGAGCAAGACTGTCTTGGGAAAAAAAAAAAAAAAAAA
AGTGCGGCCGNCNCCGCGGCGAGGTCTAGCTTGAGTCGACCCACGCGGTCC

Sequence 2478

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAATTGCTAAAACAGCTCCAGG
GNAAGNNATCTTATTTAGCATTAGCTCCCTCACAACNTTTTTCATTACACTTNTATTGG
CCAGNCTCATACCTGAAGTATTTAAATGAGTTNACAATTATTNCACTTACCNTCAGAAA
AAAAAAGGAGCAAAAACCTTAATGACTGGTNACATGCACATTTGGTGTAGGAAATTATT
ATGNGGTAAAATTTATATATTTCTATTTATTTTATTAATTTATTNTTNACACATTATTT
CAC

Sequence 2479

ACTATAGGGCGAATNGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT
TTTTTTTTTTGGTTTTCTCTTTGAAAGTTTATTGTTTTCTTTAAAAAAAAAAAAAACC
TATACCTTTTATATTTACATTACCTNTNAAAATATTTAATGGTACCTGCCCG

Sequence 2480

ACTACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACG
CGTCCGTGGTGAACACAGAGAAGACAGGTCTTGTATATATTCTCTGTATTCTGGGGAGC
TTTGACCTTGAGCTTTGTACCTGCCCG

Sequence 2481

CCGGGCAGGTCTACTCAAGTAGTCTTTACCCCTACTCAAGTAGGGGGTAAAGTGTAGAA
CAAGGAGTTTGATCTGTGTTCAACTGATTGTGAACCATCAATTGAGATAACTCACTACCT
TCAAGGCCAGCCAGNTACATACTTTTGNAAAAGCCAAGAGTGGAANCAGGGTTGGTTT
TAATCCAATTTTTGGGC

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Sequence 2482

AGGNCGACNTTNTCACAGGCAGNNAAACCGGCCAGNTNAAAACACTATGCTANCTCGCGG
GGCCANTNTTAGGATGGGTGAGGCAGATGAANCCATTCTCCNANTGGCCAAGGCCGAGGG
CATCAGCCTCAAAGAACNTTTGACNCGGAGAGAATCACANACGTGNNNTATTCGTCATAAA
NAAANAATGAAAAACCNACC

Sequence 2483

AGGTATTCGACCCACGCGTCCGTAGTTTTATCTTTGACCAACCGAACATGACCAAAAAC
CAAAAGTGCATTCAACCTTACCAAAAAAAAAAAAAAAAAAAAAAAAAAGTGCGGCCGCGC
GCCCGGGCAGGTACCAGTAGCAACATATGAGTATTTCTCTAGATAACTTTTTTTTGACAA
GGTCTCACTCTGTTGCCAGGCTGGAGTGCAATGGTGCAATCTTGGCTCACTGCAGCCTT
GACCTTCCCTAGCTCAGCTGAACCTCCCATCTCAGGACACCATTGCCTCCACTGCCCATC
CTGCATCTGCCTGCCTACCCCAAAAGT

Sequence 2484

AGGTACATTTTCACTCCTGCTCTAAAACCTTGCTCAGTCTCTCACTGTGCCTTATGCCCC
TCAGCTGAATTTCTTCTGAGCAGGCAGGAATTGAGGTTGCTGCAGACGTGTATGCAT
TTGCCACCAGTAACATACTTGGTGCCACATGACTAGGATATGTTCTCTAGTGCTAACATG
TTCGTTTACAGTTCTTAGGACTCCCTGATAGAAAAAACACAAAAAACACAAAAAA
CCCAACCAACCAAAACAAACAAAAACAAAAAACACAGGAGTTTCTCCCAAAAGAAGTCT
GCAGTGTCTTTTCTGTTTTCTCTGAAGGTATCCAGGGTGTTAGAT

Sequence 2485

AATGTTGCAGGCTACTCTCTGCCGACCAGGCCGCCGCCCGTCCCTCGTGA CTACAGCAGG
TACCTGCCCGGANGNNNNNNANGNAACGNATGTTCCACCTNCTTCTCCAACCTCTACCC
CACCATTAGTNGTATNTTNACTNTNAAAACAGTGGAACCAACAGCCCTAAAGACCTGCTNA
TNNAAGTNCCTTTTGTCTTAATTGTATTTAAAAA

Sequence 2486

GGGGAAAACCCAGCTCCACCGCGGNGGCGGCCGCCCGGGCTTTTCAAGCNTCGACCNACC
CGTCCGATAATTTATACTAAATTTAGTAAAANGGACTTNTTATTCAAAGCATCAATAATT
AAAAGAATTATTTTAAAAAAGGGACCT

Sequence 2487

AGGTACCCTCACTTGGTCATCTATCCTGAAATAAGGCTTAGTTAGTATTGGCCTGAATG
TTTTGTGTTTTTTTTTTTTTTTTTTTTTTTACTGTTACTTTGAAAAATATGTATG
TATACCTTATCATATCTGCCTATATCACTTACTTTGGGGAGATACTCAGAGCTTTGTGGT
TATCAGTATACTAAAAAAGTGCGGCCACCTGCCCG

Sequence 2488

AGGTACGCGGGGAGCCTGTCCAGCTGGCCCGGGCCCTGGCCTGGTTCTCAAGTGTTTCC
TAGACAGAGAGGCACCTGGGTCACTATTAGTCTATTTATCAGAGGTGTAAATAATCTATG
TATAAGTTTTCTCCTTTTAGATTATTTGTATTTGTTTAAAAGAAGTTTTGTCAAAATA
CAAAATATAAAGAAATGACTGAAAGTTGTTGACAGGGTTTTTAAGAAATAANTTATTCT
AATTGTTTTGTTTGGTTTGTCTTGTAACTAGCGCCAAGGAAC

Sequence 2489

CGGGCAGGTACGATGGGAGGACAGCTTTGTAGAAAGGACATTATNCAGCTNATAGCAAAC
TTTGTGGATCCCAATCCGAGATTTNCCTGCTGAAAGACAAGAAGTNTCTNAAATAAAGN
GCTGTANCAGNATTTGTATACTCCAGAATAAGNTTCTGTGATTCTTANCTGCCAATGTGT
TCAAGGCGTGATGACTNGGTNTCTGTTTCTNTGAACATNAATACTAGGGTCTGTATAAAT
TTCAATGCATGCCACCAGCTNATCAACCCCTTTGGCTTTGATTTTTGNATGNNGNATTNT
TATCCCTANGANTTCCGGCCAAGTACCTTTGGNCGCCACCCGTGGTGGGAGCTCCAATT
TCGCCCTTATAAGTGAAGTCCGNAAATTACGCGCCGCTCANTTGNNGCGTNAGTTTTT
ACAACGCCNGANGACCTGGGGAAAAACCTTGNCCGTTACCCCAACTT

Sequence 2490

GNCGGGCAGGACGCGGGACCAGAATGCAGTTCCAGCTTAGGAAGCCACAAACAAGCCACC
CAGGAGGAACAAACACCGNAGCGTGGATTTTTCAAATTTCCCCCGGGAAAGTAAGTCTC

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GCTTCCTGCCAAANAA

Sequence 2491

CGGGCAGGTNCCTTGCTAAGTTCAGACCTTCTCTTCCTTTNCTTTCCTTTCCTCTCCTGC
CCATTTTCCTGTTCTTCTGTCTTCAATACTTCTGNAGCTTCCCATTTCATGTTCTCTTCT
CCCACGCAGGCCNCATTGTGTGCAAAAAGCTGNGGNGGGGGCTGTGCTGNACTCNTNCCTG
CCTCCTGCCTCCTGCGGCTGTTGGATTTGGGAATGACCTTTGGTGAGAGNCTCACTGCTC
CAGGGTCTATTTTTTGGTCCAAAGGCTAGAACCTATANAAGTNGGGAATCACCTNTTTTT
TCTTTTTCNNGGGTGAAAATAAAATGGGTTTTTTCAANTTCNAACAAAAANAAAAA

Sequence 2492

AGGTACAGAGAACTGAATTTACACAATAAAGTGTTACCCTATACCAGTGATTCTAAAATT
TTGGTCTGGGGAACTTTTCATGGGGTTCATGAGGTCAAACTATTTTCATGATAATGTTA
TTTTGCCTGTTATTTCTATTCTCGAGTATACAGTAGAGTTTTCCAGAGGCCACATGAT
CCATGACATCACAAACAAAATGAATAGAGACAGATGAAAATCTAGCTGGCTTCTGCTACAT
GAATCAGACATTAAGGGGTCCAGAGACCATAAAGTGTGACAACCACCACTCTTCACAACC
TATATATAATATCTCAAAATAATGTTAATTCTCTATCCTCAAAGTTTATTTCTTATATC
TACATTTTCTATGATCAACACACTCACTACAAAA

Sequence 2493

CCGGGCAGGTACCACAAAAACAGTTACATGGTAGAGTTCCAATCACACAGAAAGGAATCC
ATTACAGCAATTTCCAAAGTTCAGACTGTTTGGGCCACCCAGAATTCCACCAGGACTG
GACGGCCCCCACCAGGCTATACTGGATATGTGGACACAGAGCTTATGCTAAGCTGCCTGA
TCAGGACAGGTAGCTGTATAATTGGCACCATTAAAGCCATCTTTCTTCTTACTGCCATAA
AAACAGGTGAACCTTCTAGGCTTCCAGTCTATGCTTCCTGCAAAAAATGAAGCATAGCCA
TAAGTGATTAGAAAAATAATGAATGGCCCTCTGAAAGAATCATACAATACTATAGACCCG
CCACTTAGGCACAAGAAGGCTCATGAGGATATC

Sequence 2494

AGGTACCTTGGGATTGCAGGTGCCACCCTTGCGCCTGGCTAATTTTTGTATTTTAGTA
NAGACGGGGTTTTGTCTGTTGTCCAGGCTGGTCTCGAAGTCGAGCTCAGGTGATCCGCC
CATCTCAGCCTTCCAAATGCTGGGATTACAGGTGTGTGCCACCATGCCAGCCAACACA
CACATTTATTTAATGCAAGTTTTACCTAGCACAGAGAAGCAGTGAGAGTCAGTTACTTAT
ATATTGAATTGGACCAAGTAAGTGTGAAGAAGCTAGTAAATATATGGAGGCTAAAAAGC
TGAGTGGTTCTGTTCTAACAAGGTCTGCACAGTAATCTCTTGGCCTCGACTTCTCATCCT
TAAAAATAAGGAGATCGTCCTATGTTTC

Sequence 2495

NNGGGGGGGGGGGGGCCCCCCCCCNGGGNNNAAAAAAAAAANATTTTTTTTTNTNTTTTT
TTTTTNAAAAAAAAAAAAAAAAAANNNGGGGGGGGGGGGGGNGGGGNGGGTCTTTTTTTN
AAAAAAAAAAAAAAAAAAAAACCCCCCCCCCTNNNTTTTTTTTTTTTTNTNTATNAA
AANNGGGGGGGGGGNNNNNNNNNNNNNNANATNTTTTTNNNNNGGNGGGGGGGGGGG

Sequence 2496

TGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACAGCGGGGGCGGAGGTCANGGG
ACAAGATGGTGCCACCGGTGCAGGTCTCTCCGCTCATCAAGCT

Sequence 2497

GGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACAGCGTGGAAGGGTTTANGGCAG
CAGTGTCTGATTCTTTCGCGGACGGCGAGCGCATTTGTGCTTGGCCGCCGCGGCCTAG
GAGGCTTTTGGAGCCGCGTAGTCGGTGTTTTGAAGTACTCTACAGCTTCTGGCAGGC
CGTGCGGCGCCTGACCCGCGCTCACCATGTTGGTGTCTGTTGAAACGTCTGTGGGTTAC
GCCATCTTTAAGGTTCTAAATGAGAAGAACTTCAAGAGGTTGATAGTTTATGGAAAGAA
TTTGAACTCCAGAGAAAGCAAAAAAAAAAAAAAAAAANANAGTACCTGCCCG

Sequence 2498

AGCTCNCCGCGGTGGCGGCCGNGGACNAGGNCTGANTGTCTGNGTNTCAGAATGGGATN
AGTGNCCTTATAATGAGGGAGCTNGNTTGTCCCTNCCACNACATGAGGTTACAGCAAAA

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AGATGGCTGTCTATNAACCAGCAAGTTNGCCTTTGNCANACCCCAGATCTGCANACTACC
TTGATNTTGGACTTTNCATCCTGCACAAATCTAAGANANAAATTACTGNTGTTTATCAAC
CACTCNGTTNATGGTNTTNTTCGTTATAGCAGCCTGAACTAAGACAACAGGTNGATCTTA
AGGCATNGCTACNATNAAGTCTTTCNTGCTCAGAATCTCC

Sequence 2499

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGGGAANTGGATGACTT
TTCTTGTCCATATCACCATGGAAATCTGTGTGCTGGGCATGGAGAGTGNGAAGCANGCAG
ATGCCAATGCTTCAGTGGCTGGGAAGGTGATCGATGCCAGTGCCCTTCAGCAGCNGCCCA
GNACTGTGTCAATNCAAAGGGCCAAGTGTGCAGNGGAAGAGGCACCTGTGTGTGTGGAAG
GTGTGAGTGCACCGATNCCAGGAGCAT

Sequence 2500

TGGAGCTCNCCGCGGTGGCGGCCGAGGTACTATATGTCTGAATGTCTGTGTCTCAGAATG
GGATTAGTGACCTTATAAATGAGGGAGCTTGTGTCCCTTCCACTACATGAGGTTACAG
CAAAAAGATGGCTGTCTATGAACCAGCAAGTAGGCCTTTGCCAGACCCCAAATCTGCAGA
CTACCTTGATCTTGGACTTTCCATCCTGCACAAATCTAAGAAATAAATTACTGTTGTTA
TCAACCACTCAGTTTATGGTATTTTTGTTATAGCAGCCTGAACTAAGACAACAGGTAGAT
CTTAAGGCATAGCTACAATTAAGTCTTTCATGCTCAGAATCTCCATCTGCTGGCCAAGC
ATAGTGGTTTCGCACTTGTAATCCTGGCACTTTGGGAGGCCAAGGGCGGGTGGGTACCTG
AGGTCAGGAGTTTGAGACCAGCTTGCTAACATGGCAAAACTCTGTCTCTACTAAAAATA
CAAAAATTAGCCGGGTGTGGCGGNGGGTGCCTGTAATCCAGC

Sequence 2501

NTGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCCGCGGCCATTNTTCTTTCTTT
TTTTTTTNGCGGATGGGGACTTGTGAATTNTTCTAAAGGCGCTATTTAACATGGGAG

Sequence 2502

AGGGGCGAAATTGGGAGCCTCCACCGCGGTGGGCCGGGCCCGAGGTACTTTTCTTTTTTT
TTTTGNTGGATGGGGACTTGGNGAATTTTTTCTAAAAGGGGGCTATTTNAACATGGGGA
AGGANAAGCGTTGTGCCGGTTTCCA

Sequence 2503

CCGGGCAATCTAAGAAGACATGATCACTAAATGTGATGTGGGATCCCAGATGGGATCCTG
GACCAGGTAAAACTAAAGTAATGTTTCACTTCAGTAAATAATAATGTATCAATATTGG
TCCATTAATTGTGGCAAATGTGCCACACTAATGCAAAGCGTTAGTAACAGGGAAAACTGG
GAGCAGGGTATATGAGAACTTTTTGAACTGTTTTCACAATTCTCCTGTAAATCTAAACT
CTTCTGAAAATAGAGTTTATTCTTTAAAAGTGTCTGGAGGATGTGCACAAGGGTGTGGCA
GCAGAGGGGCTACAGGTAAAAATCATGACATCTGGAATATTTCTTCAATTTTTGCTCC
ACACGGTGACTATCTTACCCTGCTCCC

Sequence 2504

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGGTACCCGGGGGGTCTGAGG
ACCCGAGGTTCGTAGGTGGATCTTTTTACGGAGCAAAGAGCAGGAGGACAGGGGATTGAT
CTCCCAAGGGAGGTCCCCCGATCCGAGTCACAGCACCAAATTTTCATGCGCATCTGTGTA
AAGAGACCAACAAGCAGGCTTTGTGTGAGCAGCAAGGCTGTTTATTTACCTGGGTGCAG
GCGGGCTGAGTCTGAAAAGAGAGTCAGTGAAGGAAGATGGGGTGGGGCCGTTTTGTAAGA
TTTGGGTAGGTAAAGGAAAATTACAGTCAAAGGGGGGTTGTTCTCTGGCAGGAGTGGGGG
TCACAAGGTGCTCAGTAGGGGAGCTTTTGAAGCCAGGATGAGCCAGGAGAAGGAATTTAC
AAGATAATGTCATCAGTTAAGGCAAGAACAGGCCATTTTCATTT

Sequence 2505

CCGCGGTGGCGGCCGCCCGGGCAGGTACTAACAAATGCAGTAGCCAACAAGATTACCATG
CAATCATTAAGGAGAACCAGTAAGAGAGCCACTCAAACCAGATTTTGAACGCTACTAA
AATTAAGTAGTTCTTTGATGAATATGAATGAGTAGGGAAAGGATTCTTTGTAATAGTA
TACCTCTGTGGTAAGAGAAGGGTGGTATGTGAGTTTTAGTCTACAGATTATGGCAAATTC
AGTGACAACAATCAAATGGTCTAAGATTGACAGTAGCACAGTTTTACTCTGTGAAGGTAA
TGTTCAGGACAAATTTCAAGAAAAGTAAAGAACCATTTTACAGCTGAAATCTTTCCCT

TABLE 1

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AACCATTGTTATTTCCACTTTTAAGTCCTCAAGAGATGAGAAAAGGGAGGTAAGGCTTCC
TTATACATTTCTGCACAATGAAACATTTTTCTCCTCCAGGCAAAAGATTCAAGCAGAA
CTGGCAAATATCTTATCTTGCTCTTCTTAATAATATAATGGTGGTAGGATATAAAGGTCT
ATACAATTAACCTANAT

Sequence 2506

ACTACTATAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGNCNGGCCAGGTACACNTTC
TTAGACCTCAACCTCGAACTNTCAAAATTNAGGATGTCTCANCCCTACTGAGGCCGGGAG
TCACCTNNACACTGANGGCCCTNGGTGNGAAGATGAACCTTNCACCGTCTNTANTGCATT
CTGGAGTGCAAAAATAAAATCCACTNAAGAGTCACAAGGCCCGCTGTGCATAATNGGNTT
CACTTTTACCTTTTTT

Sequence 2507

CCGCGGTGGCGGCCGCGGCCGCGGCAGGTACATGTAATGCTCCTGAACTGTATGCTTCGCACG
GCTGACATGCTAAGNTTGTCTGTGTATTTTATGACTATTTTTAAAAAGTAAACAAAA
AAGAATTAGCTGGAATACCAGCACAGGCAAAACCCCTGGAGACAGAAAGCAGGTGAGTGG
NTGCTGGGGCTTGAGCAGGAGGAAGGGCGAGGGACTGCANAATGGCCATGGGCTTTGCCT
TCTAGCATGATGAGAATGTTCTGGAATTAGACAGTGGTAACGCTTGTTCAACACTGCCAG
TGTAATTAATGTCACTGAATTATACACTTTAAATGGCTAACATGACCAATTTTATGTTAT
ATATATTTTACTACCACAAAAAACTANCTGGCACCTAAAAACATTCCATTGAACAGGCC
CCTTCAGATCTGTGTCTTTCCTGCATGCAAATTACNCCACAGAGCAAGCACCTATGGCAN
CGTGGATCACAGGCTCTGTTTTANGATAGANAAAGGACACAAGNGTCCCCC

Sequence 2508

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCTTTTCTTTACTTTT
TTTTTTTTGAGACGGAGNCTCACTCTGTGCGCCAGGCTGGCGCGATCTTGGCTCACTGCA
ACCTCTGCCTCACGGGTTCAAGCGATTTTCTGCTTCAGCCTCCTGAGTAGCTGGGACTA
CAGGCACACGCCACCATGCCAGCTCATTTTTGTATTTTTAGTGGAGATGGGGTTTCACC
ATGTTGGCCAGGATGGCCTCCATCTNTTGACCTTGATCCGCCCGACTCGGCCTNCCAA
AATGCTGGGATTACAGGCGTGAGCCATCAAGTCTGGCGAGAGAGATTGTTTCTAGATGAG
GGNGGGGGCCGNTGTCTTANCCCAAAGCTTGTCAGGTCTCTATCAGAAATAAATGCC
CCCAAAACCAAAAAAAAAAAAAAAAAAATAAGGTACCT

Sequence 2509

GCCGGGCAGGTACTACNTCAGCAATTTCTCCANNGNCGNNGNCGACAGCATATGGCACCA
GCCCATTTTCAATTTGCTGAGCATCGGCCAAAGCCTGTATGCGAAAGCCAAGGAGCTGGA
CAGAGTGAAGGAAATTCAGGAGCAGCTCTTCCATATCAAGAAGCTGTTGAAGACCTGTAG
GTTTGCTAACAGNGCATTAAAGGAGTTCGAGCAGGTGCCGGGACACTTGACTGATGAGCT
CCACCTGTTCTCCCTTGAGGACCTGGTCAGGATCAAGAAAGGGCTGCTGGCACCCCTTACT
CAAGGACATTCTGAAAGCTTCCCTTGACATGTGGCTGGCTGTGAGCTGTGTCAAGGAAA
GGGCTTTATTTGTG

Sequence 2510

CCGGGCAGGTACAATTGNTTTAGAAGATANTTTGTCTTCTCTTTCAGTTTCNCATATT
ACTAAAGACAAATCATGGTAGGATTGGNTTGTATTATACTTGGCCTAACTATTTGTAT
ACAATGCAGCAAGAAATGATTATTTTTTACTTAGGCTTTAAGTAGGCTCTGATGGAACCT
TGTTCCATAGCAGGAATCTCAGATAAGACTTTGTAACCCGTAACCTCANCCGAGCCA
TGGATTTATGCCATTAAATACCCATGAGTTGGGTGAAATTTCTTNTCCTTNGAGGGCCC
AAGATAAACCTGGGGCGTCTGCACTTGNC AAAAGTGATATTCTTTACTTACACAG

Sequence 2511

AGGTACACNGNTNNAATCTTACTTCAACTTTNAANGGGCCACNNAACCCCTCTATATCCC
CTTGTAATTTAACTGCTAGTCCACAAGAGGAACAGCTCTTNTACACTAGGAAAAAACC
TNGTNGAGAGAGTANAAAATTTAACACCCATANTNNGCCTAAAAGCAGCCACCAATTAAG
AAAGCGTTCANGCTNAACACCCACTACCTAAANATCCCAAAAAAAAAANAAAANAAAGNAC
GCGNGGANGTGTNAAATTTTANAGAAGAATTTNTNTTGTAGTTCTTTGCACGAAGGNANA
GATAAAGACACTTTTTCAAAA

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Sequence 2512

CCGGGCAGGTACGCGGGGACTGAAAATNGGACTGTTCAACTCACCTGGCAGCCACTCCCA
GAGCTCCTGGAACCTCTGGCCCAAGGTTCTCTGACTGACTCCTTCTTGGCTTACTGGCTGA
AGACTGACGCTGCCTGATCGCCTCAGAAGCCCCGAGACCATCATGGACGCCGAGCTTTA
GGTAACTCACAGTGGAGGCCCGCCTGCACCCAGGTGAAATAAACAGCCTTGTTGCTCACA
CAAAGCCTGTTTGGTGGTCTCTTACACAGACGCGCATGAAAGGGAAGACATACAAAAAC
AAGGCCTCTGAGGTAGGTACCT

Sequence 2513

CCGCGGTGGCGGCCGAGGTACTTNTTTTTTTTTTTTTTTTTTGGGTTTCCGGGGTCGTNTTG
GGGGTCTCAATATTTTTGGCTCCTCTCCTTTACAGACACCTTGATTTTTCAAAGTTTTTC
TTGGAGTCNAATTCCTGATCAGAAGTTTGAATGGTTGTTACTGCTGTGTTTTTCATGTCA
ACAATTTCTTTTNTTGTTCCTGACAAGGTGTCTCTTGCAGCTGACTGTATTATTATA
GCGCTTTCTTTCTTTTCTCCTGTATTTTTTGGTATCTTNTTGAACACAANAATGCTCTG
ACACAAGCTTGAATCAAATAAGCTTGTCAATAGCTTCCTTTCGCATTAGATTTAACTGC
TCCACGNGATAATACTTAAGGAACACTTTTGTGTTTTCCAAGAGCCCAGTTATCGAGACCA
GCTTTTTCCAAAATGGTGGCACAAGTGTGAGGGCTCATGCGGG

Sequence 2514

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTT
TTTTTACTTTTTAAACTTCTTGTTAAAAATGAAGACACAAACAAACACATTAGCCTAGGC
TTACACAGGGTCAGGATTATCAAGATGTCACCTTAGGCGATTGAAATTTTTAGCTCCATT
ACCATCTTATGGGACCACCATCCTATAAGCAGTCTGTGATTGACCTAAACATCATTATTC
AGCACAAGCGTATTTCAAATTTAGAGTTTTACTTTGATGTTCTTCTTTTTTCTTTTTCT
TTTTTTGAGACGGAGTCTCACTNTGTGCGCCAGGCTGCAGNGCAGTGGTGCAATCTCGGC
TCACTGCAACCTCCAGTTTGGGCCACAGAGCGAGACAGCGAGACTCGGTCTCAAAAAAAA
AAAGAAAAGAAAAGTACCTGCC

Sequence 2515

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGAAATAAAC
TCAAAGGATAGGTTCAACACCATAATAGAGAGGACAGACAAAAAGAATCTGTGAACTTGA
AAATTGAACAATAGGAATGACCCAATTTGAATAACAGAGATAAATGAACAGAGCCTCAGG
GAATTGTGGGAGTATAACAAAAGATCTAACACTGATGTCGTCAAAGTCCCAAAGGAGAGA
GAGGGGATGGGGCTGAAAAAGCACCTGAAGAAGTAATGGCTGGAAGCTCCCCAAATTTGG
CAAAACACATAAGCCTACAGATTCAAGAAGCTGGGTGAATCCCAAATGAGAGAAATCCCT
TCAAATTCACACAAAGACACATTATAGTCAAATTTNTGAAAACCTNNCANATAAAAAGAAN
TNGNCAAATNNGGTACCTGCCCG

Sequence 2516

CCGCGGTGGCGGCCGAGGTACTTTTTTCTTTTTTTTTTTTTTTTTTTTTTGGAGACGGA
GTCTCACTCTTGTCACCCAGGCTGGAGTGCAGCGGTGTGATCTTGGCTCACTGCAAGCTC
CACCTCCCAGGTTCAAGCCGTTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGACTATAGGC
GCCTGCCACCACGCACAGCTAATTTTTTGTATTTTAGTAGANACAGGTTTTACCACG
TTGGCCAGACTGGTCTCAAACTTNTAACCTCAGGNGATCCACCCGCCTCAAAGNGCTGG
GATTACAGGCGTGAGCCACCGCACCCGGCCAGACTCCTTAAATGTGANAAGTAGCACT
GAGGAATGTGATCAGATTATGGCCTTGATTGGCACATGGGGTCGCTTCCACGGTTGGCC
TTCTTGTTCTCCACGGCATCTTGTCATAAGCCATTGCCATTTCAGGAGCTCAGCATGC
ACATCCCGGATTCTGNGCTTGGGT

Sequence 2517

CCGCGGTGGCGGCCGAGGTACCTGTGACATCATAATTGCACCCTCCGACATGATATCTCT
TCCAAATGCTTGATGAAAAAGGTGGGAGGATCACTTGAGCCAGGGAGTTGAAGGCTGCAG
TGAGCCCTGTTTTGCCACCACACTCCAGCTTGGGATTGATTCCTAAAGACTCATGTTAC
GTGAGGAAGCAGCTCAGAAGAGGAAAGGAAAGGAGCCAGGCATGGCTCTTCTCAGGGAC
GCCTGACTTTCCGGGATGTGGCTATAGAATTCTCATTGGCAGAGTGGAATGCCTGAACC
CTTCACAGAGGGCTTTGTACCTGCCCG

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Sequence 2518

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTTGGGGCTGGAAGGGG
GGCAGAGTCTCACTCTGTTGTCTAGGCTGGAGNGCAGTGACAGAATCACCGCTCACTGCA
ACCTCTGCCTTCCAGGTTCAAGTGATTCTNGCGCCTTAGCCTCCGGAGTAGCTGGGATTA
CAAGCTAATCCCANCTAGGCGTGCGCCACCACACTCGGCTAATTTTNGTTATTTTTATTA
TAGTANAGACGGGGTTTCACCATGTTGGCCAGGCTTGTCTCAAACCTCCAGACCTCAAGTG
ATCCACCCGCCTTGGCCTCCCAAAGTGCTGGGATTACAGGTGCGAGTATATGCTTTTAAA
GGGTATCCAATCAAGCTAACTATGGTGATGGAATGTCTCCAGTTCCTCTGTAATACACGT
ATCGTCCAGCCCCGCTACCTGCCCC

Sequence 2519

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTGAGA
TTANGGGAGTGGTGATGACTCTTAACAAGCATGCTGCCTTCAAGCATTTGTTTAAACAAG
CACACCTTGACAGCCCTTAAGCCATTTAACCCCTGAGTTGACACAGCACATGTCTCAGGG
AGCACAGGGTTGGGGGTAGGGTTACAGATTAACAGCATCTTAAGGCAGAAGAATTTTTCT
TACAGAACAAAATGGAGTCTCCTATGTCTACTTCTTTCTACACAGACACAGTAACAATCT
GATCTCTCTTGCTTTTCCCCACAACCTCAGCCTCTCAGAGTGCTGGGATTACAGGCATGA
GCCACCGCGCCCAGCCTCCCTTTTAAAGCACTTTCTGAAGTCAAGCCTGATTACAGGATTG
CAAGCCTGCAGAGAACTATGGTGGTAAAGCCTAAAAAGATAGAATCCTTCCACACCTGA
GAAGGCAGGTATTTTTAGAAGGAAACACCAGAATCACACTTAAGTCACTGCAAAGGCATT
CATGTTTATACATTTCTGAACTGTCTTACTTGGAACCTTTATGNGG

Sequence 2520

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGGCATGGTGGCTCACGCCTGTAAT
CCCTCCACTTTGGGAGGCCAAGGCAGGTGGATCACCTGAGGTTGGGAGTTCGAGACCAGC
CTGACCAACATGGAGAAACCCCGTCTCTACTAAAAATACAAAATTAGCTAGGCNTGGCGG
CAGATGCCCGTAATCCAGCTACTCCGGAGGCTGAGGCAGGAGAATCACTCGAACTCGGG
AGGCANAGGTTGNGGTGAGCTNANATCACACCATTGCACTNCAGCCTGGCCAACAAGAGT
GAACTCCATCTCAAANAAAAAAAAAAGGAAACATGAAGCCTTCCTTNAATGATGATAG
TTTCTAAAGTGAATTATTTGAATCTCTTTGCATGTTTTGGCTCTGTTAATCTAACTCTTG
TCTCTAAATAGATGCTGAAAGTGTAATCTAGATGACTATAACATACACGTNATTGCAAG
TGATTCAA

Sequence 2521

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGGCAGGTACTTATTCTTTTTTTTTT
TTTTTTGGTTATGAAAACCTTAGGGACTAAAATTAATAAAAAATTGGCATAATGTTGGAT
TGAATCTACATTTTGGCAGAAGTTAAACATTCCACATAATGTCAAATTATACATCATG
CAGTTCTGTTTTTTGTTTTGTTTTATTTTGTGTTTTGAGTCTGGCTCTGTCACCCA
GGCTGGAGTGCAGTGGCGTGATCTGCAACCTCTGCCCCCGGGTTCAAGCGATTCTCCTG
CCTCAGCCTCCCGAGTAGCTGAGATTACGGGTGCGCGCCACCACACTTGGCTAATTTTTG
TATTATTAGTAGAGACGGGGTTTCAGCATGTTGGCTAGGCCGGTCTNTCCTGACCTCAGG
GTGATCAGCCACCTCGGCCTCACAAAGTGCTGGGATTACAGGCGTGAGCCACCTTGCCC
AGCCACATCATACAGTTTGAATGAACTTTGCCACAACACAGCCTTTGCTGTAGCACAC
ACATATATCACTGAACCTGTTTGAATAAAAGTTTTTTTT

Sequence 2522

CCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTNGGTCAATTTGNCCCTAGTTTTTAAAAACAAAAGTGTTAACTAGAATNTAACACAGA
TCAAATCCAAACNCAGCAGTCCAGNGGAGAATCAAACTTTTCCGGCTTTATTNTNTGGG
AAAACCCCTGGTCTGTTTTATTCTCTATTGGNCCAGGCCACCATNTATGATATGAAGGC
CTAAATTAGGAAAGCTAGGNGAGCTGNGCAAATNTGGGTGTCTGANCCNCCTGTTGTTT
GGCGTGTGATGGGGGTGGAGGCCCNACAGGGGTGTTCTCGCTAGNGTTCAAATCACAAA
AACAGGGACCGTAACTAGGGGGAGGNGAGCAAAGCNCTCACCTTGGGCACAAAATTTAAG
GNGTGCCAAAAAACCCAGTAACCAAAGATAAATACTNTTTTAAATGCAACATTTTTAAAAA
ATCCAATTAATGTAATAAAGGTTTTTGATGGACAATGTTTCNAAAATTTTNAATAAAGG

TABLE 1
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GTTCCCCCGTACTTTTTTTTTTTTT

Sequence 2523

ACTTAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGAGGTACACACATTACACTATCCC
TTATCAAATATACTGAATGTAAGTAGGCTGGGTGCAGTGGCTCATGCCTGTAATTCAGC
AACTTGGGAGGCCAAGGTGGGTGGATCACCTGAGGTGGGGAGTTGGAGACCAGCCTGGCC
AACATGGTGAAACCCCATCTCTACTAAAAATACAAAAATTAGCCAGGCGTGGTGGCACAC
GCCTGTAATCCCAGCTACTCGGGAGGCTGAGGCAGGAGAACTGCTTGAACCTCGGGAGGTA
GAGGTTGCAATGAGCTGAGACTGCACCACCGCACTCCACCCTGGGTGACAGAGCAAGACG
ACGTCTCAAAAAAAAAAAGTAATTAAGCTTGTTTCGATTACTTAGGCTCATCAATAGT
AAGATCAACATGGTACCTGCCCCG

Sequence 2524

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGNCCGGGGTCCTTTGTCCTNAAAACGT
TAGATCTGGGCTCTGATTCCCTAACTGCCACTCGTGATCACAGAGGTGCAGAGAGTCATTA
GCCATTGTTCACCTCCATTGTTGCAAGCCCCCTCACCTTCTGGTTGAAGTGACTTTCAGG
AGAATTAAGAGAGCTGGNGTTTCCCTCCCCACTCCCATTCATTTTCTCATTTTCCCTT
TTGGGAGCCAGACATAAACACAATTGCNTATATGAGAGAGAAATCAGAAAGTCATGGCACAG
CCTAGGGGATGGTGCAGGCTCAGAAAAGACCTCTGAGAAGACCTTAGATTATATACTTCAG
ACTCATCTTAGGCAAAGAGGGCTTACAACAATCAAAAAACAAAAATAATAAAAAACAGTA
ACAAAAACAGCAAACCCTGNAGAAGAGGAAGAATCTGATTTCCAGAGTTAACACATTAGT
AAATTCTAATGTCTGGTTTTCAACAAAAATATCACAAAGGGATTACCAGAGAAACAGGGA
AAGTGTAACCCCATTCAAATTGAAACCTAAAGAGACTTAANAAACAANAGGGATTAAAG
GTCAAGAAAATTTTTTA

Sequence 2525

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCGGAAGGTACAGGGCTT
GAGTCGTAGCCAGGGATAGNATTATGGGTGAGAATAGACAGGATGGAGGACACGAGGCCA
CAAAGCCCCACAATCCCAGGGCCACAGCGCCAGAGGCCTAGTTTGTCCAGAGGAATGAAG
AGATCACAGGCATTTCTGACCACGTNTAGCANAAGTGGGGGATGACCTNTAAGGGCTCGA
GCCAGGAGCNTGACTTGCAGCCCNAGTTTCAGAGCCAGTTGGGGCANACCTCCTCCTGGA
GTCCTGGTCCCCCAAGTCCCCCAGTTTTNATTTCTCNTGGGACTCNTCTTCAAAANCNT
TTAATNCNCGNNTTNNANGNAAANNATTTGGTTCATTNATANGNCNANTTTNTNAACCT
TNCNGGTTAAATTNATNNTNNGGAAAACNAATTGNACCNNCCCNNGCNNNAGCNGACCC
CCNGCCCGTACNTTTTTTTTTTTTTTTTT

Sequence 2526

CCGGGCAGGTACGCGGGGCTTCTGTTGGGCGTTTCTGCTGAGAGGCGGGAGGCGCCGAGA
GTCTGTGCGAAGGTCCGTGGACAGACTGCTTTGCCTGTTGTTGCTCTTCGGAGGCGGCGA
TCCCCGAAGGCGAGCTGAAATACGGCTGCAGGCTACAATTTGCAGCCGACCATTATGGAT
GACAAGGAGCCGAAGAGGTGGCCACCCCTCAGGGACCGCTTGCTGCTCGGATGGCTTCTTA
TTTCCCAATACCCCATTAACCGTATCATCTGAAGGGGATCCACAGAGTTGTCTTCTAT
CGTGATCTGGAGGAACTGAAGTTCGTTCTGCTCACC GCCTTATGACATCAATAAGAGAGA
CAGGAAGGAAAGGACCGCCCTACATTTGGCCTGTGCCACTGGCCAACCGG

Sequence 2527

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTCAAGAAGTAAGTGGA
CACCTTTCCCTGTCATAGTTATTTTCATCCAGACATCTGGTGGAAGCATCAGATTCCGAC
AAACAAGGATTTATGTCAGGATCTCTCAGCCTCTGTGTTACCGAGGGCATTCTAACAGTC
TTCTTACTCCGGCCTCCGCTTCGCCAGCACCCAGGCCGTCTCCAGCTCCAAACACCCCCG
CGTACCTGCCCCG

Sequence 2528

ACACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTT
TTTTTTTTTTTTTTNGGAANGGAGTCTCGCTCTGTCAACCAGGCTGGAGTCCAGNNGGCACG
ATCTCGACTCACTGCAACCTCCACCTCCCGGGTTCAAGCTATTCTCCTGCCTCAGCCTCC
CGAGTAGCTGGGACTACAAGGGATCTGCCACCACNCCCGGCTAATTTTGTAAATTTAGT

TABLE 1

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AGAGACGGACTTTCACCATATTGGCCAGGCTGGTCTTGAACCTCTGACCTTGNGATCCAC
CCACCTTGGCCTCCCAAAGNGTTGGGATTACAGGCGTGAGCCACCGCGCCCGGCTTACTA
CAAGTCATAAGTTTCTTAAAGGCAATGTAACTCCGAAAACCTTAATGCACTCTTATATTG
NTAATACATTAAATCCACTGGCCTGGCTTACACTTTTGAATCAATCTTTGAGCCATGCA
TGATTTTGTAACTTCACGTACCTGCCCCGGCGGGCCGNTTNTAAACTAGNGGATCCCC
CGGCTGNAGGAATTCAATTTAAAGCTTTATCGATCCCGCNCCTCGANGGGGGGGNCCC
G

Sequence 2529

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACTTTTTTTTTT
TTTTTTTTTTGTTTTATTTTTTATTTATGTTGGCAGAAAAGCTGAGGCAGGGCTTCTG
ACATAAGGTAAAAGTGCTTGGAAACATGTCCTGGGTCCAGGTCTATAACCCCTTGNGGC
CTATGGAACACCAAGCTCTGTGCCAAAGGGTGGAAAGGCTGCCCTGCCNCACTACAATNTA
AGCCAGAGCATAAAACCCCTGTAGCCTGNNGAATATATNCANACTCGCTGGCCCTTG
CTCNTTGCTCTNCCAAGATCACAAATNGATTGCATNTNNAATTAACCACTGNTCTCC
CTTATCNNAAGGTAGCAAGANNCATAGCCAAACCCGTNCAGGNTACCGNTTGNGCACCA
ATTACCTTTNTNTCNTNACGTCCTAACCTGGCNACCCTTACNTCANAACATCCTAATTAC
CTGGTTTTTTTTTTGGATTCCCAATAAAAAGGGGGG

Sequence 2530

CCGCGGTGGCGGCCCGCCCGGGCATGGTACGCGGGGTCCCTACAAATGCAACGTCTGCAAT
AAAGTCTTCAACCAGCGCTGCTCTCTGGAGTCCACCTGAAGAAAATCCATGGGGTGTAG
CAGCAGTATGCCTATAAGCAGCGGGGACAAGCTCTACGTCTGCGAGGATTGCGGCTAC
ACGGGCCCCACCCAGGAGGACCTGTACCT

Sequence 2531

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTGGAAGACCTTAT
TCGATATCTTGAACCAGAGAGATGGCAGTTGGACTTAGAAGATCTATATAGGCCAAGCTTG
GCAACTTCTTGGCAAGGCTTTTGTTTTTGGAAGAAAATCCAGAGTGGTGGATCTGAACCT
TCTAACAGAGGAGGTAAGATTATACAGCTGCACACCTCGTAACTTCTCAGTGTCCATAAG
GGAAGAACTAAAGAGAACCATAACATTTTCTGGCCAGGTTGTCTCCTGGTTAAACGCTG
TGGTGGGAACTGTGCCTGTTGTCTCCACAATTGCA

Sequence 2532

GGAGCTCNCCGCGGTGGCGGCCGNCCGGGCAGGTACCNCGGGGGTGCCCCGNAAGCAGTT
GTTGTTGGTTGGGGCCCTTTGGGCCGGTGACGGANACTGCCAGGTGTTGGNCAACCATGT
TCCTCTNCGCGGTCTTTTTTGGCAAGAGCAAGTNANATGNAACAAATAGTCTTTTCGTG
GAAAAGAAAAAATNCGCTCCCTTTNAACGGTGGATTGAAAATGACTNTGNTTTATAAAG
AGAANACTGAGGGCGGGGATACTGATTCANAAATNCTGTANCGTGAATAAAAG

Sequence 2533

CCGGGCAGGTACAGCTGCATCAGCTGCTCGTAGGACATGTCCAGCAGCTGGTTCGAGGTCC
ACGCCGCGGTAGGTGAACCTGCGGAAGGTCCGCTTCTTCTGCTCTACTTCTGCCACC
CGCGTACCACGGCTATCCTTATAGCTTTTTAATTAAATGAAGCCAAGTGGGATTTGCATA
AAGTGAATGTTTACCATGAAGATAAACTGTTCTGACTTTATACTATTTTGAATTCATT
ATTCATTGTGATCAGCTAGCTTATTCTTGTGTACCT

Sequence 2534

GACATGGCGCCCGCCCGCTTCCCCCGCGTACTTTTTTTTTTTTTTTTTTTTTT
TTTCTTTCTTT
TT
TTCNAAAAAAAAAAAAAAAAAAAAAANTAAAAANTNTAAANAAAAAAAAAAAAAGGGGC
CCCNNGNNTTAAAAAANNGGNCCCCCGNGNGGNGNAAANANTTANAAAAATNTTN
NNANCCCNNGANAANGGGGGGGGNNCNANNNAAAATTTTTTTNTTTNANGNGGGGA
AAAANGCNCCCTNGGGNAAAAAA

Sequence 2535

CCGCGGTGGCGGCCGAGGTACTTCTTTTTTTTTTTTTTTTTTACATCCCATATGACA

TABLE 1
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TTGACTGATTAAAAAGGCCTGATCGGTTTTGTTATCTTCCACACTTCGTTTAATTTAAC
TTGTGTTTTGTATCTTATAAACCATAGATAGGCCAGGCGCAGTGCCTCATGCCTGTA
ATTGCAGCACTTTGGGAGGCTGAGGCGGGTGAATCACCCAAGGTCAGGAGTTCAAGACCA
GCCTGACAACATGGTGAAACACTGTTTTACTAAAAATACAAAAAATTACCCCGCGGNGG
GGGNATGCCCCCTGGAAAATCCCACTTCNTCGGGANGGNTGANACAGGGAAAAATCCNTT
TGAACCTNGGAAGGCAAAGGTTTCNANNGNCTTANAAANCCNNCCATTTGTTNCCCN
AGNCTNGGGNGAAAAAGGGCAAAAATTCCTTCNCCAAAAAAAAAAAAAAAAAAAA

Sequence 2536

GACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCCCGCCCGGGCAGGACAAAACAAA
GACTTTTCATCAACTCTTTTAGATATGCTAGAAGAGCTAAAGGAAACCATGGACAGAGAA
CAAAAAATTAGGAAAGCAATGCCTCATCCAATACAGAATATCAATAAGAGATTGAAAT
TGTAAGAAAGAACCAATAGAAATCTGGAGTTGAAAAGTATTATAACTAAACTGAAAA
TTCACTAGAGGTATTACGACGACAGCTGGAGAAGTCAGAAGAAAGAATCAACAGGCTTCA
AGATAGGTCAATTAAGATTATACAGTCTGAGGAGCAGAAAGGAAAAAGAATGAAGAAAAA
TGAACAGAGCATAAAAGACCTCTGGGACTCTATCAAGCA

Sequence 2537

CCGCGGTGGCGGCCGCCCGGGCAGGTACAGAGTGTAAGCGAGCTACACCAAAGAATGGTG
ATTAGCGCTCCCAGGGTGGGGAAAAATGAGGATTGTTTATATAGGCAAAATGGAGGTGCC
AAACAGAATTATAACATTTTCGGAACCTAAGGCTCATTTAAAGATACAAATTTGATTGGCT
ACTATTGATTACACTTGAAGGGGATTGTTTAACTTTCTTTGTNAAAGAAAGNACNAG
NNNNTAAGGNNTTTANTTTCCCANCCNTTTAAGTCTTAGGTTTTTGAAAAAAAANAAT
ANGGGGGGCTGGGNTTAAATTTTACCCTNNTAAACCCCNAAAAGGNCCAGAAAAAAN
AAATAAAAANGTTTGGTNGNTTTTCCCACCGACCCAGGCTTGGCAAGGCNCCCTAAT
TTTTTCNTCTTTNGGCCNAAATNCNATTTGGGGAAGGGCCNAGAAAATTGNTTTTTNTT
TTTACCATTCCCCTNTTNTANTGGGNAAAANNTT

Sequence 2538

CCGCGGTGGCGGCCGCCCGGGCAGGTACATCACAACAGTAAAATTTTGCTCTTTGCTTCT
GGAGGAACACCCTACAACAGGTAATTAATAATTAATAATATGAAAGGGGAGCTAA
ATACCTGAAAATTTAAACAAAATGAAGCAAAAAAAGGGAAACAAATTCATTGCAAGAGA
TGGAAATTACATTTAAAGGCTGAAAATAATAAGAAATTCATAAACAACNGGCCCTAT
TGNCTTGGCTCCTTCAGAAAAGATTACTGGAANGGAACCTGGGAAGGGGGTTGNGGAAA
TACAAATTTTTTGGGANTTNGGGGGGAAANTTANCACNGNGNGGAAANCCCCCNGNACC
CCCNTTTTTTTTTNGNGNCCTTTTTTNAAAAAANNGGGTTCCCNNGGNCCCNAA
AAAAAAAANTAAAAAATTTTTTTTCCCCCCCCCTTTNAAAAANNGGGGGCCCCCCC
CCNNNNGGNGGGGNATTTTTNNNTNNNNTTTTTTTNCCCCCCCCC

Sequence 2539

AGCCTTGAGCAGGCAATGATCTCCACCCTCCTGGGTGCGGGTGACAGCTCAGGCATCCC
TGCACTTTTGGGGGCTGCTTTTGCAGGCTCGGAAGTGCTTGCTCTGCAGCTTGGCTTC
TCCCTGCTATTGGCACCAGCTCTCAGATCAAAGCAGGGGGGTAAGCCTGGAAGCCATGAA
CAGGGAGGGCCTGAAGGCTGAGGGCCAGGCTGCCAGTCCCACCTGTAGGAGTGGGAAGTG
GTGCCTTTTCCAGGCCAGTAAGTATGCACTTNTCCCCCGAGGCCCGTAAATGCCCCAG
GCTCAGCCAGAAGTGAAGCAGAGGGTGGGACGACCAGCAACAGG

Sequence 2540

CCGCGGTGGCGGCCGAGGTACTAGTCTCAAAAGCTGGGGACTCTGAGCCTTACCTAGAGT
CTCAGCAGGTGGACCATTAAGATTAACTTTCTAGTAGGTGAGTTCAATCAGAAAAATAT
TTCTTGTTCCATAGATTTTATTGTGGCCATGTCAGTGAACACCCACAAGTTTTGCTCAGA
ATATTTTAGGTGTAAGCTAAATCCCTAAATTGTTAGAGTTCCACAGCCCTGTAGCAGC
AGAGCGAGAACTTTAACCAGACTTTTTCAATCCCAAAGCTAATCTGGAGGCCAACAGTGT
TCAAAACCTTGGTGACTGAGGAACCATTTAGAGTTTTTTCAGGCTCAGGAATCACATGGG
TCGTTGTTGGGCTTGGGGGTAAAGTTTACAGGCGATGAAGCTTGACGTTGAGTCACTTGA
CTTCTGGAGCCATAATTTATTTTCTCCAGCAACCTCCT

TABLE 1

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Sequence 2541

CCGCGGNGGCGGCCGAGGTACTCAATGGAGTTCCTTGGGGGGATCCAAAACCNNGGAGAG
GAACACAGGCGCTGAGTATGGAGCAGNNTNGAGACCCACCCACCTGCAGGCCTGACNAG
AGCGCCNGGATNTCTGGTTCNGATGCCAATACTAGACACCCCAAGNAGNCNGCTCACAGN
AACCNTTACCTNNTTTTNAACGCCCCCTGGGCCTCGCNACGCGCACAGAAANGGGANCATA
ANCNNCNGAAAGGNACCCACTGAAGCCCATTCTCCGNNAGNANCNNNGNAANNNNNCAG
CTNNCNCCTCCGCTAAGGAAGANANCNAGNNGGGGANCCNGGCCCCNCAACCNCCNGNG
GAACCCAGCAGNNCNGNNANANCCCCNCGNACCCNAGAAGAANNAAGACGNNAAANACN
GGGNGGAACNNNNANAGANAACACACNNNNNANAGAAAACGCNNAAAGGAAGNNAGNA
CCNGNCCGGGCGGCCGNNCNAACAAGGGANCCCCCGGGCNGAGGAANNNGANACAAGC
NAANNGAACCGNCGACCNNGAGGGGGGNCNCCGGACCCAGNNNNNGNCCCNNAANGAGGGN
AAANGNGCGCNNGGNGAANCANGGGCANAGCNGNCCNCGGGNGAAANGNAANCGNNANAA
NNNNNANAAAAANNANCCGGAGCAAAAANGGGAAAG

Sequence 2542

ACTATAGGNTTTTATNGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAGGACATTATTTTT
TCTATTCATCTAGCACNGAAGCCAAATTTGGGTCTAAAATCTTGTGATGGCAACCAGGAG
CTTTAAACTTCCTTCGTAGTGATCTCATTGAAGTTGCAACAAGGTTACAAAAAGGAGGA
CTTGGATATGTGGAAGAAACATCAGAATTTGAAGCCCGNTTCATTTATTAGAGAAATTG
AAGGATTTTGGTGAGTGTGTGATTGCCCTTCAGGCCAGTGTCTATAAAGAAATTTCTCAA
GGCTTCATGGCTCCCAAACAAAAAAAAAAAAAAAAAGAAAAAAAAAAAAAAAAAGTACAACTTA
GAAGAAATTTGGAAGATAGAAACANGATAGAAAATGAAAATATTGNCAAGAGTTTCAGAT
AGAAAATGAAAAACANGCTAAGACAAGTTTGGGAGAGTTTAGAAAAGATAGAAAAATNTA
AANGCCCAAAATTGGGATAAATAGCNCTGAAGAAAAAAAAAAAAAAAAAAAAA

Sequence 2543

CCGGGCAGGTACTAGANNACCTTCCTCGCCACTCTCTCCACATGAGAGAGTCAGCTGCCC
TTTCTCCTGTGCCTCTGCAGGAAGAACTCTCTTGCATGGCACATCTCAGCTCCTCATTGA
GGGATAGTTTTCTTTGATAAGAAACCTGGAGTCCATTTACTCTGACCTCTCTTTAAATCT
ATATCCAGAGCCACTAGCCCAGGAAAACTTGGGTGACCCGTAATTTCTCTTCTCCTGCT
GTCCTTTTGCTCTTACGCCCCACCCCACTCCCCTTAAATTTTACAGGCTTATGACAGTT
TGTATGTGCTCAGCCAATGAGCAGAAAACTGGAAAGAATTTCTGGACTTTAGCCCACCA
GTTTGTCTGGTTGACTAACCTGCTGAGAGCTAAAAATTGGCACCCATTGCCCGTGCCTT
CAGGCAGTCTCCTGGGGCAGAGTATGCCACCATCCGAATATCAGGCACTGAGTGGGGATG
TGGGTGATGCTCAACATGACTGGCTAGAGCTTTGGGGGTGGGNNGGGGTTAACTACTA
TTTTTTGGCCATGANCTNTTCCCCTTCCTTTTTTTTTTAATTAATAAANGGNTCAAN
TAAATANTTCAAGGCCTGCCTTTNAAAAANAAATTTTTTTTA

Sequence 2544

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTATTTCA
TATATTGTGTGAGCCCCACAAATGTCTATTTTAAAAAGAGTATAGTCCCTGGCCAGGCGC
GGTGGCTCACGCCTGTAATCCCAGCAGTTTGGGAGGCCGAGGTGGGCGGATCACCTGAGG
TCTGGAGTTCGAGACCAGCCTGACCAATATGGTGAAACCCCGTTTCTACTAAAAATACAA
AATTAGCTGGGCATTGGGGGAGCATGCCTTGTAATCCCAGCTACTCGGGNNGGTTGNGGN
GNGGAAAAANANCTTTGAACCCCCCNANGGCCAAAGGTTTTTTATTTGGGGCCCCAAAAAA
ACCNCCCTTTTGCCCTTCANCCCNNGGGGNNANAAAAAAGGNGGAAACCNTTCCNCTN
CCCCCAAAAAAAAAAATTTTTTTAAAAAAATTTTAAAAATTTCNAAATTTAA

Sequence 2545

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTCTTTTTTT
TTTTTTAGTTTTTGAATCCCGTCTCTACTAAAAATACAAAAAAAAAAAAAAAAAAAAAT
TGGCCGGGCATGGNNGCGCATGCCTGTAATCCCAGCTACTCAGGAGGCTGAGGCAGGATA
ATTGCTTGAACCCGGGAGGNGGAGGTTGCAGTGAGCCGANATCGTGCCACTGCACTCCAG
CCTGGGCAACANAGTGAGACTTTNTNTCGGAAAAAAAAAAAAAAAAAGATCTGGNNGGTGAA
AATAACCNAAATGAAAATAGCTTGAAAACCTCACANGNGGGAAGCTCCCTTTTACCCTTTT

TABLE 1
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TNTTCCCTTGGCCNGATGGAATCCNNNCCCTTTTTANAAAAAAGGGAAAGNCCNCTT
TTTTTNNAAAAANANTGGTTNTNAANATTTTNCNCNCCCCGGGGGGGGGGGNGTTATTA
AAAAAANGGGGNCCCCCCCCGGGGNGGGGAAAATNNNTTNAATTTNTTNNCCCCCCCC
CCCCNGGGG

Sequence 2546

CCGCGGTGGCGGCCGCCGGGCAGGTACCTCCATTGTTTCTAGGAAGTAACTAACTTGCT
TTTGATTTTACAGGCTTGTAGGTGGAATGGGCTTGCTTGTCTCAGATGAGACTTTGGAC
TGTGGACTTTTGAGTTAATGCTGAAATGAGTTGAGACTTTGGGGGACTATTGGGAAGGCA
TGATTGGTTTTGAAATGTGAAGATAGGAGATTTGGGAGGGACCGGGGTGAAATGATATGG
TTTCGTCTGTGTCCCTCACCCAAGTCTCATGTTGCAAGTCCCACAATCCCACGTATTG
TTAGAGGTGATTGAATAATGGGGGTGGGTCTTCTGTGCTGTTCTTGGGATAGNGAATG
GGTCTCATGAGATCTGATGGTTTTAAAAACGGGAGTTTNTNTGCACAAGCTNTCTCTTT
NCTGCTGCCATCCATGTAANATGTGACTGGC

Sequence 2547

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGACCATGACACCA
AGCATTCTGTCCCCTCCCCCGCAATGGCAATCAAGTGTACAGAAAAATAGCCTTTTAA
AATTACCATGAGCCTTTTATTTTTATTTTATTTTACACCCAGGCTGGAGTGCAGTGGCGT
GATCACGGCTCACTGTAGCCTCAAACCTCTGGGCTCAAGCAATCCTCCTGCCTTGGCCTC
CCAAAGTTGGNTNAGGGTTGATGAGCCACTGTGCTCAGCCAACCATGAGGTTTTAGAGA
TGATCTTGTNTAAACCCTTCTCGCCTGTTTTGCAGAAAAGAAAATTGAGATCCCAGAGAA
ATGAAGTAACTTGCCCAAGGTCATTGAGCAGGCAAGATAGAACTAGATCCCCAAATTGCA
AACTAGCTGNCCAGAGTTCTTTCCTCAATGAGCAATTTAAAAGC

Sequence 2548

CCGCGGTGGCGGCCGAGGTACTAACTGTCTGGGATCGTAGTCGATTAAACAGAGCCACCT
TTGTTCTGAGGCAATGCATAAGTCAGCATTTTTCAATGACTGCTTCTTTTTGGAAGGTT
TGGAGATGACTTTTATCCGCTTGCTGAGGAACACACCAATGTCATCACTGTTGCCATAGA
ACATCTTTACAGACAACATGAAGTGCTTTCGCTTGCTGAGTCAGATATATAAATGGTT
TGGCTGGTGCCATAAGTTCTTTTCTNTTCCAGGTTAAGCTGGCTGCATTTNTTGGTCACT
ATTTCTATNCCAATAAATGCACACNGGTGAGACTCTTGTTCAAAAACAACCATCGCGGT
CCATTTGGTCTTTTTTTTTTCTTCCATTCTGCTGATATCCAAAGGGGGGNGGGC
AAAAAAGTGGGAGTTATTTTGTATGCCAAAAAGACACAGCCAAGAGGACTTGNGGATCAT
GCCCC

Sequence 2549

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTTTTT
TTTTTTTTTTTGGCATAAAAAGTGACAAGTTGTCTATGTGTTAAACATCTTAATTT
GGATGTATTTTTATCCAAATGATGCATACTTGGATGCATTAAGACACCAACAAAAA
TNCNCNCTNTAACAATAANGGGNNNNNTTNNAAANGGNGNCGGGGAGNGGNAACAANATTT
NGGTANANGGGANNTTNTTTTTTTTTTNNAAAANAAAAGAGAATTTGCTTTNTAAACAAN
AATTTTTTCCCCNNCANATTTAATTTGAAAATNTGAAAGNTATNGGAAGGACANNCC
AATTGGAACACNNTGTGCAAAAGTTCNANAACNAAAANAAAAGATNNTTTTCTNNGGTTNGG
GCNCTNANNCCNTGNAATTCANATTTGGGGNNGGNNGGNNCCCCNTTTTTTTTGGGGGG
GNGGGGGNTTCCCNCCCCCCCCCCCCCANNNNGGGGGGAAANCNTTTTTTTTAAANAA
AAAAA

Sequence 2550

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGGTGCTGAAATC
CGGCATGTTCTTGTCACTGGGTGAGAAGATGACAGAGGAAGAAGTAGAGATGCTGGTG
GCAGGCGATGAGGACAGCAATGGTTGTATCAACTATGAAGCGTTTGTGAGGCATNTCCTG
TCGGGGTGACGGCCCCNTGGGNGGACNNCCCCCANNGGNCNTAAANGGGTNANAACNTT
CCNGTTTTCCCCAAANGCCCGNCCCCCTTTTCCNTTGGGANAANTTTTTNTTCTNCCNCA
AAANGTTNCCCTAGGNTTTNTTGTNCNANNAANTTTCCATTTTGTNTNTGGGANGAT
GTTTNGCCCGTCANNTCCACCAATAANANTTNCTTTTTGGNAAAAAATNTAAANTN

TABLE 1

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NNNNCNTNNNNNNAAAANCCCCCCCCCCCCCTATNAAAANTNAGGGCCCCCCCCCGGNNN
GNAAAAAATAANANTAAATTTTTTNCCCCCCCCCNCNCNGGGGGGNGGCCCCCCCCCNCT
TTTTTTTTTTNTAANNANCCCCCCCCCCCC

Sequence 2551

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGTGTCTCACCACATCCTGGCTCCA
GTGTGGATGCAGAGAGAGTGTGACAGAGGATCTGCCTGCGAACCACCTGGGATTAGTCAA
GTCCCAAGGTGCCCAGAGTGGGACTAGTTCTTCACAGTGTGGCAGCTGCACTAATCTGTT
TGTGAGGGAATATCCATTCCCTCACTCTACTCTCNTCATTATGGGAATTTNTTTTGTN
CAAAATAAANCCCTTTTGTATAGANAAAAAACCNCNCCCCCNNTTNA
ANAANGGGCCCCCCCCNGGGGNGNANNNTTNNAAATTTTTTTTNCNCCCCCCCCCNGG
GGG

Sequence 2552

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGGGATCTTTTGGCAN
GAGCCCCAAGTAAAGCTGTCAATCCTGATGAGGCTGTGGCCATTGGAGCTGCCATTCAGG
GAGGTGTGTTGGCCGGCGATGTCACGGATGTGCTGCTCCTTGATGTCACTCCCTGTCTC
TGGGTATTGAACTCTAGGAGGTGTTTTNCCAACCTTNTATTGGGATTNTNTTTTCC
NNCCCAAAAGNGCCGGGTTTTTTNNTCCCCNTNNNGGNAACCCNGGGGGGAAAAAA
AAANGTGGTTCNNGGGNAAAAAANTNTTTTAAAAAANATNTTTTGGNNNNN
ATTTTTTTTTGGGANAGANNNCCCCCCCCCCCCCNGGGGGGNNNTNTNTNAAAGAANN
TTTNNNTTTTNCATTTTTNNCCCCNNNNNGATAAATNCCCCCCCCGGNNGCCTATATAAA
AAAAAANCNCCCCCCCCGGGNNAANAANTTTTNAATATTTTTTCCCCCCC

Sequence 2553

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTCTTTTTTTT
TTTTTTTTTTTTTAAGACGGAGTCTCGCTGTGCGCCAGGCTGGAGTGCAGTGGCGG
GATCTCGGCTCACTTCAAGCTCCGCTCCAGGTTCAAGCAGTTCTCCTGCCTCAGCCTC
CCGAGCAGCTGGGACTACAGGCTCCCATCACACGCTCGGCTAAGTTTTGTAAATTTAG
TAGAGACAGGGTTTACCATGTTAGCCAGGATGGTCTCGATCTCCTGACCTCGNGATCTG
CCCGCCTCGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGTGCCAGGCCAATA
TGAAAGTTTTAACTTATTGGCACAANAAGTTTTCATGAACCTAACAATATTTAATTAAC
AAGTATTCTTCAATAACATTCCCTT

Sequence 2554

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTT
TTTTTTTTTTTGGAGCGAGTTTCACTCTTGTACCCAGGCTGGAGTGCAATGGCGCAAT
TAGGGTTCACTGCAACCTCTGCCTCCCGGTTCAAGCAGTTCTCCTGCCTCAGCCTCCTG
AGTAGCTGGGATTACAGGCATCCACCACCGTGCCAGCTAATTTTTGTATTTTAGTAGA
GACGGGGTTTTGCCATGTTGGACAGGTTGATCTCAAACTCCTGACCTCAGGTGATCTACC
CTCCTCGGCCTCCAGAGTGTTGGGATTACAGGCATGAGCCACCATGCCAGGCTGCTAAT
TCTCCTTTTAGGNGAGTTAGGGGAACTGAGCCTCAAAAACTTAAACGATTTCTCAAAA
AACACCTCAAGTGATAAAGTGGCCACATTGNAAAGGGAGTTTTATCTTTTATTGNNNG
CCCAGGGGTCAATTGGACAAAATCATGCTACCTNTTGGATTTTAAATATTCAATTGGCAA
A

Sequence 2555

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGACTCAGAGGC
CGCCATCAACCGCCAGATCAACCTGGAGCTCTACGCCTCCTACGTTTACCTGTCCATGT
CTTACTACTTTGACCGGATGATGTGGCTTTGAAGAACTTTGCCAAATACTTTCTTACC
AATCTCATGAGGAGAGGGAACATGCTGAGAACTGATGAAGCTGCAAAACCAACGNNNGN
GGCCGAATCTTTCTTCAAGATATCAAGAAACCNACTTGTNATTACTGGGAAAAGCGGGC
TTAATCAAGGGGGGTGGGCCTTTANNTTTTGGNAAAAAAGGGNGAATTNATTTCTNTTT
TTGGGAACAAGNAAAAACCTGGGCCAAAAA

Sequence 2556

CACTACTATAGGGCGAATTGGAGCTCACCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTT

TABLE 1
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TTTTTTTTTTTTTTTTTTNAGACAGGGTCTCCCTNTGTCACCCAGGCTGGAGTGCAGT
GGCACAATCATGGCTCACGGCAACCTCGACCCCTGGGTCCAAGTGATCCTTCCACCTCA
GCATTCCACAAGATGATGGAACCACAGGCATGCACTACTATGCCTGGCTAATTCTTTAT
TTTTTGNCGACAGAGGTCTCCCTATGTTGCCAGGCTGGTNTTGAACCCCTGGGCTNA
AGCTATCCTCCCGCCTTGGCCTCCCAAAGNGTTGAATTANNNGGAATGAGCCACTTTTTG
GGCCTNGGCCTCNANTTAATTTNAAAANGGNGTTTGNNTTNAACCNCCGCCCTTTAAA
AAAAAGGGGCACCCCCCGGNGNGGGGNAATTTTNAANNNAATTTTTTCCCCCCCCC
CCCCCGGGGGGGGGGNGCCCCCCCCCTTTTTTTTTTTTAAANNAAAAAAAANCCCC
CCCCCCCCAAAAAAA

Sequence 2557

ACTNCTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACTTCTTGTCAAATT
CCTTCTTGATATGAGCCGCAATGCCCTCTCTATGTTGTATTTCTCCAGCGCTGAGTAG
CGCACTCCACCGAGTCTGTTGCATCTCTCCGACATGTCCGCATTTTTGATCACGGCT
TTCGGTCGCCCCGCGTACCTGCC

Sequence 2558

CTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACTACTGCTGAGGTCTNCAG
GACAGAAGNCACCTCCTNTGGTAGAACATNCATCCCTGGNCCTTNTCAGNCCACAGTTTT
GCCAGAAATATCCACANGAACAAATGACAAGGCTTTTTGCCT

Sequence 2559

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTATAGGGGACACGGTCTATCCGCAA
GCTGNGGATTCTGCCATTCTCATCATAGTTTTGAAGCCGGGTTCTGAAATCTCATGACA
GATCTCCAGCTTGAACACGGAATGGTTTTCTAGGCCCTGCTCATAATACAGCTGCAG
GTAACCAGNGTCTGTCAAGTTGACGAANATCGGTCCCCAGTGCCTGGAGGACATGATGTT
TTTNTTCTCAGGGATCCTCAACATNATTGGCCACCCGTACGAGGCTGGGACCGTGCTGA
TCCAGGCGGTGAGCATNTAGTTCAATCCAGGCTACTGGGTATCATCAGGTAGAGTTGC
ACTGCCAAAGTGATCAGGGTCATTAATTTGGAGTTGTTGAGTTTTCAACAGCATCAGA
AGTGNGACTGGGTTTTGCTTTGAATCATCNAACTGGATGGCATCCTTGGNAGATGACAA
TGAAGGGAATNTNTTTGGCTTT

Sequence 2560

CCGCGGTGGCGGCCGCCGGCAGGTACTGGGCCGGGTGCAGTGGTTCACGCCTGTAATCC
CAGCACTTTGGGAGGCCGAGGCAGGCAGATCAGAGGTGAGGATCGAGACCATCCTGG
CTAACACGGTGAAACCCTGTCTNTACTAAATTAACAAAANTTANCCGAGCNTGGNNATG
GNNGCTTGATNCCAANTNTTCGGAAGCTTAGCNAGAAAATNGCTNAACCTTGGANGNG
GAGCTTTGANTGAGCCAAAATCCCNCCNTTGNACTCANCCTTGGGGGAAAAAACNGNAA
NTCCTTTTTTAAAAAAAAAAAAAAAAAAAAAGGGNCCNNTCGGCCCTNTTTTAAANN
TTGGGGACNCCCCCGNCNNNNNGGNAATTTTTTTTNAACCTTTTTTTNTNCCCCCCCC
CCCCNNGG

Sequence 2561

NCTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTT
TTGATTGTTATTTAGTTTTATTTTATAATCATAAACTTAACCTGCAATCCAGCTAGGC
ATGGGAGGGAACAAGGAAAACATGGAACCCAAAGGGAAGTGCAGCGAGAGCACAAAGATT
CTAGGNTCCTGCGACCAANGGGGGGGGNGGCCNNNNNNNCCNAAAAAAAAANNTTN
GGGGGTTNAAAAAAAAANCCCNNTTTTTTTTTTTGNCCCNCCCCANCCNNGGGGGGG
TTTTTTTGNNGGGGGGNTTGGCNATNCCGGNANCCCAAAGCGCTCATGCCNCANAAA
NAANANTCCGNGCCTTTTTTTTNCCTTGNNGCAAACCNCCANTGNGCTTTNGACNNCCAC
CCNCTTCATTTTTGGGGGGGGGCAAAAAAAAAANCCCGGCNCNCTTTNGGGGGGGGGN
CCNTTTTTTTNNAAAAAAAAANANCCCCCCCCCTTTTTTTGNGANNAGGATTTTT
TTTTT

Sequence 2562

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTT
TTTTTTTTTTTTTTTATAGGGGACACGGTCTATCCGCAAGCTGGGGATTCTGCCATTCTCA

TABLE 1

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TCATAGTTTTGAAGCCGGGGTTCTGAAATCTCATGACAGATCTCCAGCTTGAAGTACACGG
AANGGTTTTTTTAGGCCNTGNTAATAANNAGNTGCAGGNAACCAGGGTTTTGCNATTTG
NNCAAAAANCGNNCCCAANGNCTGGAGGACANNNTNNTTTTNTTTTNAAGGATNCTTAAC
ANTATTGGCCNCCCGTAACAAGGGTGGGACCGNCCTTATCCAGGCGGGNGGGCTTTTTAG
TTCAATCCCGGCTCTGGGGNANTANTNAGNAAAAGGTNCCTTCCAAAGGAANNGGGGCAA
NAATTGGGNGGTNNTTNGGNGTTTTCAACCCNNANAAAAGGGGGCCGGGGGGTTTTTT
TTAAAANAAAAAAAATGGGGGCNTNTTGGAAAAANAAAAAGGGAANNTTTTTTTT

Sequence 2563

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCAGGTGGAGAGAGGGTGGAAAGTGA
GCAGCGGGCTGGGCTGGAGCCGCACACGCTCTCCTCCCATGTTAAATAGCACCTTTAGAA
AAATTCACAAGTCCCCATCCACAAAAAAGAAAAAGTACTATTCTAGTCTTA
AGAATAAAGACCNCTGTTGAGCCAGGCGNGGGGGTTGNCNCNTGTANTCCNACNCNTTNGG
GNGNTTGGGGGGGCAAAATCCGGGGGTGAGGGCATTGAGACCAGCANCCCGGGGTCAGG
CTTTGAGACCCAGCCTGGCCAACATGGTGAACCCCTGTCTNTACTAAAAATACAAAAAT
TAGTTGCGCATGGGTGGTGACACCTGGTAATCCTAGCTACTCAGGAAGGTGAGGCAGGA
GAATCACTTGACCTAGGAGGCGGAGACTGCAGTGAGCCAAGATTATGCCAATGCACTCCA
GTATGAGTGACAGAGCAAGACTTGTCTCAAAAAAAGAAAAA

Sequence 2564

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGGGAGCTC
GGATTTTAAGGCAGTAGCCTGCTGATGCTCCAGCTGAATAAGCCCTTCTTCTACAAT
TTGGTGTCTGAGGGGTTTTGTCTGCGGCTCGTCTGCTACATTTCTTGGTCCCTGACCA
GGAAACGAGGTAAGTATGAGACAGCCGAGGCAGCCCTTAGGCGGTTAGGCCTCCCTTGN
GGAGCATCCTTGAGGCGGTNTCCCCCCCCCGGGGCCCTTNAAAAANANNCCCCCGN
AAAAAANACCCCGGGGNNCCCNANNNAAACGGNGGGGNCCTTTTTTGGGGNNNAA
NAAAANNCCNNCCCCCACNCAANAANNACTNTTTTTTTTNCNCNTNNTNAAAAA
AAAAAANAAAAAANNTTTCCNCGGGGGGGGNTTTNNTAAAAAANNGN
GCCCCCGNNNGGGNGAANNTTTTTNAAATTTTTTNCCCCCCCCCCCCCGG

Sequence 2565

GCGAATNGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTGTTTTTTTTTTTTTTTTT
GCTGGTAGGAAATGCTTTAATAAAATGCAATCTCTAAGGGGCCATGGCATCATTAAAG
AAAGGATGTCATGCCAGATCCANAACCTGAAGGTGGCNGGCACCAGCAAGCACCATANT
TTTGAATNGGCCTTNTCTTNCAGGGTCTTANTTTCCACNNNTGTTACTTTTTTNCNC
CTTGAAAAATGGANNAACNTGTTNCNCNCCTTGGGTTTNTTAGTNGGGAGGGAACCTT
TNGTCCANCTAAAAATNTTGNNGCGNGGGCCANTTTNGGGGGCNTTTNGTTTTTNANN
TTGGCCCCNNGGGGGGCGNGGGGGGNNNCCCTTTGTTNNNCNNNTANGNNNAAAAANT
TTTTNNNTCNGGGGNAAAAA

Sequence 2566

NCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGAAGAAGAGG
AAGAAGAAGAAGCAGAAGGAATGGAAAGCCTGGAGAAAGAGGATGAAATGACGGATGAAG
CAGTTGGAGACTCTGCTGAGAAGCCTCCTTCTACTTTGCCTCACCTGAGACTGCTCCAG
AAGTGGAGACCAGCAGAAGTCCACCAGNTTGTGAACCCCAACCTTCAATCAAGAAAAAG
ACCTTTGATCAGGAGAAGACTTCTCGTTTCATTTTGGGGACACATTGAGGATTTCTTCAA
AAGCAGTGAGTAACATTGAACCCCTCTTGCTATTCTGGTCTNTCTTCTNATANAAA
TTGGAANAAAAACCCCGGNCCCTTGGAGCCTTTTAAATGCCAAANGNNGCNCTTTNAAA
ANTTAGGGNANCCCCCGGGCGGGGGGNATTTTTTTTAAANTTTTTTNCNCCCCCCC
CCNTGGGGGGGGGGCCCCCCCCCNNTTTTTTTTTTTTNTTNAAGNNNGNGNANANNCN
CCCNNGGGNAAAAA

Sequence 2567

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACTNCTTTTTTT
TTTTNTNGNGGACTTGGGCTTCTCTGCCCATATTGCANTGTTGATGTTCCAGAGTTCT
ATCCTTACTCTAAANGATCTCCATTTTGGAGCTTATCCACACAGNGGACTGTGGNTTNT

TABLE 1

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GGTCTTNGNNCTTNTGCCTAGGACNTNCTTTCTAGGTANCCACATGCCTGCTCTCATT
TNTTCATGTCTTAACCTCANAGGNCAACTTTGANTTAANGCTTTCTATNACTACATTNAAN
ANNGTGNGACCTTTCNTGTCTNCCCANCTNGCCTGATNTTTNCTTNTCCATTGCACCTTN
CTTNTGACTTCT

Sequence 2568

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGGATT
TCCGNTGAGTGACCCCTTACAAGTCCTTCTTGATCCTGAACTGGGTAGGTGCCGCTGNTG
CTGCTCGTGTTGAATCTAGAACCGTANCCAGACATGGNACTGGAGGACGAGCAAAAGATG
CTTACCNAATCCGGAGATCCTGANGAGGANGAAGAGGAAGAGGAGGAATTAGTGGATCCC
CTAACAAACAGNGAGAAAGCAATGCNAGCAGTTGNAGAAATGTGNAAAGGCCCGGNAGCGG
TTAGAGCTCTGTGATGAGCGTGTNTCCTCTCGATCACATACAG

Sequence 2569

CCGCGGTGGCGGCCGAGGTACATTATGTTTTCGTTTTTCATTCTCAATAGTTTCTTCT
TGGAGATTTGGGGGAAAATGATAGACAGGAGGCAGGACTAGATTGCAGCCCTCACCCGG
ACAGACAGCAGCTCACAGGGACTCGCATCATGAACTTTGGCTCCAGAACTACTGCAGGAA
TATACCAGGAAAGCCAAGAGAATCCACAGACCCTCTGAAGGAAGCAGATTGCTCCTTCAG
GACCCAAGAGACACCCCTAAATACTGTGTTGGTATCGTTGGCAGAGAAACCTCAAGACGGT
TCACATTACAGGACTCTGTGCAGACAACCCTCGGTACCTGCCC

Sequence 2570

AGGTACTACAAGAACATCGGTCTGGGCTTCAAGACACCCAAGGAGGTGCGGGGAACCTCA
GAAGAAAGAAGGGGAACCTGGCGTTTCTGCACGTGTGCCACGACGAGTTGCCCTGCCTG
CATCTAAGTGGCTTCTGGGGCTGCTGGGAATTGTAGTTGCTTCCCTGAGGCCACGCCCT
GGCTNTTTTAAGGAACCGCCCGCCCAAGGCTCACTCCTTTATCTTTCCTATCCTTTCAGG
CTATTGAGGGCACCTACATTGACAAGAAATGCCCTTCACTGGTAATGTGTCCATTTCGAG
GGCGGATCCTCTCTGGTAAGTGCGGGAGTTACTGGTGTNTGGGGCCTGAAATACTGAAAG
AAGGGTCTTGGGGCCCA

Sequence 2571

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCNGGCCGGGTACCCCCATNACAG
NNGNCAANCNGNCTGAGGAAGTGGCNCCTACCANGCAGGNGATCTTNCNGGAGCGGTTGG
CNGCAGNGCCNGAGTTNACCCGGTNTTNGGCCCTGTTCAAGTNTNACCTGANCCCATG
GCCCTCACCGNGTCANAGACGGAGTNTGTNATNCGNCTGCACCAANCACACNTTCNNCAA
CCACATGGTTTTNANNTNGNCTGCACAAACNCACTNAATGACCNACCTTGGANAATGT
NNCAGTGCNNATGGAGCCCANTGNGGCCTATGAGGTGCTCTGTTACGTGCCTGNCCGGAG
CCTGCCCTACNANCANCCCGGGACCTGCTACACACTGGTGGCACTGCCCAAAGAAG

Sequence 2572

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGNGNGCCCGGGACGCACAGNAAANN
CNTGTNTTNGTNGGNNTNTCTATNAAAAAGGCAATCAAGAAAGATAATGTGAAAAAGANA
GGAATTNATAGGTGCGGAANANATGAATGTCAAGACATTTGAAGAACTATAGTAAATGA
TCAACACTAAATATACTNAGAGAAANCTTTGTTAATATGCCAATGAGGTNGGCCTGATCT
TTGAAATAGTGAATAGGAATNCAATGCATTTCTCAGTGATCACTGATTANGAATGAGTT
GGTNNGGATCCTTGGGA

Sequence 2573

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGGAAGCCTGGTTGAAGTC
TTTTCTTGAGAGGCCTGGATTTGTTACATATTCAGATTTCAACTGGCTTTATAACAGG
TTTCTTATGTGCCTCATATTGGCTCCAGGTTCACTGGGTTTAAAAGGAGCCAAAGCACC
ATAAGGTTTTGGCAAAGGAAGAGTGGCATCTGCTTCTGGGATGTAGGCATTTCGACGCTG
CTCTGCAGTTGTGTAAACACCATTGGGCAGCTGGCGATTATCTGCTTCCAAGAACTCCTG
AGACTTTTCAGCGATGGCCAAGGCGTGCATTTCTTCATCTCGAAGGACTTTCACCATTC
TTTCTCAATTTCTTATTGAGTGGCAGACCTTTTTCTA

Sequence 2574

TGCCGGTGGCGCCCCGAGTCCGCTTGTCCGTCTTNTCTCTGACTGNGGTACNNCGGG

TABLE 1
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GCCTGTCTCTGCAGAGGTCANGGGAGGCNNGGGCCCCAGCACAGTTCNCAGTGGCAGC
GNGGAGCGGCAGCTTACGGGTTTCGCGGGAGCCCCGACCCCCCAAGGGCTAGAGGAGCNC
TCGGCGGACCAAAGAAAGCCCGCGAAGCGGNTGCGGCCNACCAATAGGTGCGGGGCTCG
GAGCCNNACAACTTGCGCCGTACCTCNCNTCCGCCCCCGCCCGNCCNCCGCCGCCGC
CGACTCCCCCTACTCCTGCTCCTGCTTGGCTCCTCCGCCNAACGTNTCGCACTCCGAGA
GCCGNAGNGGCAGCGGNNCCGTCTGCTGCAAAGAG

Sequence 2575

CCACGCGTCCGTTCCAGNCAGTTCCATCCAAGGGAGAATTAAGTAGAGAAATTTGTCTG
CAATCTCANNGGNNNGACAAATCTACGACACCAGGAGGAACAGGAATTAAGCCTTTCTG
GAACGCTTTGGAGAGCGTTGTCAAGAACATAGCAAAGAAAGTCCAGCTCGTAGCACACCC
CACAGAACCCCCATTATTACTCAAATACAAAGGCCATCCAAGAAAGATTATTCAAGCAA
GACACATCTTCATCTACTACCCATTTAGCACAACAGCTCAAGCAGGAACGTCAAAAAGAA
CTAGCATGTCTTCGTGGCCGATTTGACAAGGGCAATATATGGAGTGCAGAAAAAGGCGGA
AACTCAAAAAGCAAACAACCTAGAAACCAAACAGGAAACTCACTGTGAGAGCACTCCCCTC
AAAAACACCAA

Sequence 2576

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAGCCTCCTCTATTCTCCCA
ATCTCAAGGTTACTCTTAAATACTAGTAAATGCAAAAAGAACTTGTAAGTGGCAAGGCA
TGGCCTATCAAAAGTCAGCCCAAGGGCAGTTTTTCAGCCCTGCCTCACCTGGGTCTAGTTC
AGCTGACGCTGAGCTGATTGATGCGTTACCCCCGATAGCCAGGTGTGCCATCTCCTTG
AGGAAGCCCACTCTATTTTTGGTAGCATGACGGGCCACTGAGAGGTGGAAAGGGCACAAG
AACCATGAGATCTCCTGGAATGCTTCCCTGGGAAGGCAATTTTCATGAATGAGTCTTCC
AAGCAAATGACGCCAACTTCCCCAGGTGCTCCTCAATCACTGTACCTGCCCGGGCGGC

Sequence 2577

AGGTACAGAGTCTTTTGCTTCTCCTCCACCCCTAGGGGGAAAAAAGTGTCTTGCTTTGGG
AAGTTGTCTCTGAAACCCGGGGACAGAGGACGCAGGACAGACTAGGAGGGAGCCGGGAGC
TGCCCGGCGGGTCATGGGAATAACGCCGCCGCATCGCCCGGTGCGCATCGTTTATGGTCG
GAACTACGACGGTATCTGATCGTCTTGAACCTCCGACTTTCGTTCTTGATTAATGAAAA
CATTCTTGGAATGCTTTGCTCTGGTCCCGTCTTGCCGCCGGTCCAAGGAATTTACC
TTCTAGCGGGCGCAATACGAAATGCCCCCCGGCCGCTCTAGAACTAGTGGGATCCCCCG
GGGCCTGCAGGGAAATTTCCGATATTCAAAGCCTTATTGAATACCCGTGACCTCGAGG
G

Sequence 2578

CCGCGGTGGCGGCCGCGCGGGCAGGTACCCCGAGTCCAGCGGAGACAAAGGAGTTAGAAA
GAGACAGAATAAGAGTTTAAAGGCAGGTCCAGGGGACCGGAGCGTTGGAGGCTTGCTCA
TGGCCCAGAGCTCTTTGGCTCCGCCAATTTATTGATTTACAAGCTCTTTGTTCTTAGGG
CAGATGGGAGGGGTAGGAAGGGATGAGGAAAAGGATTAATCAGTGAAGGAGAACTCGTGA
GTCATTCAATAATATGTATAGTAGTGGTGGTTTCTGTGAATTTCTTGAGTAAAGGCGTG
TGTCTAACTACTCAAGATCTTTAACTTATCGGNATTGAAATGGATGGG

Sequence 2579

AGGTACGCGGGATAGTGAAACCCCGTCTTTACTAATTTTTGTATGTTTGGTAGAGACAG
GGTTTCACCGTGTTGGCCAATATGGTCTCGATCTCCTGGCTCATGCCTGTGNNCCAGCA
CTGTGGGAGGCTGANGCAGGAGGATCATNTTGAAGCCAAAGAGTTCGGGATCAGCCTGGG
CAACATAGTGATAACCTATCTCTTAAAAAGAAGAAGTTTTTAAATTTGAAATAATAANA
GGTACCTTGCCCGGGCCGCGCCCTCTAGAACTAGTGGGATCNCCTCCGGCTGCAAGG
GAATTTGATATCAAGCCTTATCGGATACCGTCCGACCTTCGGAGGG

Sequence 2580

CCGCGGTGGCGGCCGCGGGCAGGTACGCGGGATGATTGAATTTTGTTCGCCTAAAATAGT
AATCTATAAGATATAAACTCGAGTTAGGGTTTACATTTTTTACTTATGAACACAGGGCAC
TAGGGCCACTTCAGTCTAATTTCTGCTTTTTAATTACTTTAACACTCCACAGGAGGAGG
ACTGGTTTTCTCTGTGACTTCCTAATGTATGGCAAGCAGGACTTCTTCTAATCCACTAC

TABLE 1

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CCTCTTCCCCTAGCTTAACTAAGGCTTGCAGTAAAATTATAAATTTCCACTTTCTTTCCT
ACATTCTCAAATGTAGGAAATGAGGACAAACAACCTCCTCTCTCCAATTTACAACACTAT
CAACTATTTGTCCTTTATTGTGCATTTAGACACAGGTGTTTTAATTGNTAATCATGTTT
TTACACTGCAGTGGATGGCAGGTTTT

Sequence 2581

CCGGGCAGGTACTTTTTTTTTTTTTTTGAGATGGAATTTTGCTCTTTTGCCAGTCTGGAG
TGCAGTGGCATGNNCTCAGCTCACTGCAACCTCCACCCACTGGGTTCAAGCGATTCTTNT
GCCTTAGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGTGCCTGGCCCTGTCT
CTCTTAAGAGTAGGTTCAATTGTCTGTCTTAGAGTCACTTCTATTGCAACTCATTTTCTTT
TTCCAGGGCACAGATCGACCAAGCTGCCGGTTCCTATTCTGCAGGGACAGGGACTATTT
CTAGCATACCTGCTTTCGTCCACCCAGGCAGGGGTTTGGGGTGGGTCTNTTCTGTGCCT
GCAGTCCCCCATTTTGACACTTTGGGTGCNCACCCATTTTTTGGGANAATNATTTGTTT
GGGAAATGAAGGCTTCCATTGGG

Sequence 2582

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCTTTCTTTTTTTTTTTTTTT
TTTGAGATGGAGTCTCGCTCTATCGCCCAGGCTGGAGTGCAGNNGCGCGATCTTGCGCGA
CTGCAAGCTCTACCTCCTGGGTTACACCAATTCTCCTGCCTCAGCCTCCCAAGTAGCTGG
GACTACAGGCGCCTGCCACCATGCCTGGCTAATTTTTAGTAGAGACGGGGTTTCGCAGTG
TTAGCCAGGAAGGTCTCAATCTCCTGACCTCCTGATCCGCCCCGCTCGGCCTCCCAAAGT
GCTGGGATTACAGGCGTGAGCCACCGCGCCAGTTGTGCATTTCTGGTTTCTAAGAATCA
AACCACCTGGGCTGTTTTAGAAGTACTTCCCATGTTATAAAGCTGAGGAAGCTTTTTT
TTTTTTTTTTTTGAGACAGAGTCTTGTGTCNCCCAAGCTTGGAGTGCANTGGTGAATCTT
AGTCCCCGGGTTCAAGCAATTTTTCTGCCTTAAGNCTTCTGAGTAAGCTAAAAATACAG
GNGNGCCNCCACCCCGNTNGGCTTATTTTT

Sequence 2583

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGCCAGGTACGCGGGGGCACTCAG
GGAGCTCAGATTTTGAGACAGTNGCTGGCCGATGCTCCAGNTGAATAAAGCCCTTCTTT
CTACNAAAAAAGAAANNGAAAAAAGAAANACAGGATATCTGAAATTAAGACNGCNGATGGA
GNNGTTTCTNNAATGACAGGGNCCAAGGNGNGACCACGGGACCAAGNGGCTGAACTGGN
ATGAAGTTAAGAAGCAGNAANAAACATCCNATAATATGGTGATCAGNTCAACAGAATGAC
ATATTNACCATGTNCCNAGGAGGNGATGACTGAGATTTCAAAT

Sequence 2584

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCTGGATAGCCTCCAGGCC
AGAAAGAGAGAGTAAGCGCGAGCACAGCTAAGGCCACGGAGCGAGACATCTNNGCCCCGAA
TGCTGTCTAGCTTCAGGAATGCCCCCCCCGCGTACTTTTTTT

Sequence 2585

CGGCTGCGGCGAGCCGGTATCAGCCTNACTCAAAGGGCGGGTAATACCGGGTTATCCACA
AGAATCAGGGGAATAACCGCAAGGAAAAGAAACATGTGGAGCCNAAAAGGCCAGCAAAAG
GCCAGGGAAACCCGTTNAAAAGGCCCGCGGTTGCTTGGGCGTTTTTCCAATAGGGCTT
NCGNCCCC

Sequence 2586

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACGCGGGGGGATT
TCCGCTGAGTGACCTTACAAGTCCTTCTTGATCCTGAACTGGGTTAGGTGCCGCTGTTG
CTGCTCGTGTTGGATCTAGAACCGTAGCCAGACATGGGACTGGAGGACGAGCAAAAGATG
CTTACCGAATCCCGGAGATCCTGAGGAGGAGGAAGAGGAAGAGGAGGAATTAGTGGATCC
CCTAACACAGTGAGAGAGCAATGCGAGCAGTTGGAGAAATGTGTAA

Sequence 2587

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTT
TTTTTTNGGGTATGAAAACCTTAGGGACTAAAATTAATATAAAAATTGGCATAATGTTGGA
TTGAATCTACATTTTGGCAGAAGTTAAACATTCCACATAATGTCAAAATTATACATCAT
GCAGTTCTGTTTTTTGTTTGTATTGTTTTGTTTTGAGTCTGGCTCTGTCAACC

TABLE 1

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AGGCTGGAGTGCAGTGGCGTGATCTGCAACCTCTGCCCCCGGGTTCAAGCGATTCTCCT
GCCTNAGCCTCCCGAGTAGCTGAGATTACAGGTGCGCGCCACCACACTTGGCTAATTTTT
GTATTATTAGTAGAGACGGGGTTTCGGCATGTTGGCTAGGCCGGTCTCTCCTGACCTCAG
GGGGATCAGCCC

Sequence 2588

TAGGGCGAATTGGAGCTCCCCGCGGNGGCGGNCGNNGNACANAATAANGCCTGTCACATA
TTAAGTNTGTAATAACGCATTTATTATTACTTATCAGGGTATGATTTATGAATTGNGGAA
CCTGNGATTATGGGAGAGTCTGGCTTCAATCAAGGGCTGAAATTCATTTCCACTGACAT
CTTTTNCCTTCCCCATCCCCGATTCTGTCTGCAACAGGGTAACAAGAAGGGGCCCTTAG
GCCGTTGGGACTTTGATACCCAGNAAGAATACAGCGAGTATATGAACAACAAAGAAGCTT
TNCCCAANGNTGCATTNCAGTATGGTNTCAAATGTCTGAAGGGCGGAAAACCA

Sequence 2589

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATAGTGTGCGGAACCTCA
AATCGGCATTTAGATAGATCCAGTGGTTTAAACGGCACGTTTTTGCCTATAAAAAAGTG
CAAAAAAGATGTGGTTTACAAGTTAAAGCTACAGAATCCCTTTTTGCTGTAATTGCACCA
GTTTTAAAGCCTCTGGACAGAGCAGTATTTCTGTTTAAACTTTGTTTTCTTAAAGCTT
ACAGTGTGTTGGCTAATTCTCCTCCCTTTTTACAAGACGGGGGCGGAGGGTGGACACTG
GTGGCAGGTTAAGGGATACTGTCACTTTAAGAAGCCTGCAGATTGAAGTGTAAACATGGA
GAAATTAGGGGCTGATTTTTTAACTGTGTGAGATATTAACCAGCCGCCCTGTTATAAAA
TCAGGGAAATCCAAACAGCGATTTACACCCGATTAAACACCCCTTTATATATTTTTTACA
AAAATACACTGGGGAAAATAATCNAACCGNTTTCATCTCTCTTGGCTTTTTTGGTTTTT
AA

Sequence 2590

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTCTTTTTCTTTTTCTT
TTTTTTTTTAATGTGAGACAGGATCTCATTCTGTTGCCTAGGCTGGAGTGCNNGGGCGCA
ATCTCGGCTCACTGCAACCTCTGCCTCCTGGGCTCAAGCAATTCTCCACCTCAGCCTCC
CAAATAGCTGGGATCACTGGCACAACCACCATGCCAGCTAATTTTGTATTTTTGTAG
AGACAGGGTTTACCATTGTTGCCTAGGCTGGTCTCAACCTCCTGGGCTCAAGCAATCCTC
CTGCCTCGGCCTCCCAAAGTGTGGGATTACAGATGTGAGCCACCGCATCCAGCCCCACA
CCCTCATTTATACCAATTACCTGCCAGTAAGTGTGGACTTTTGCTTCTCACCCTGCT
CTGATCTGGAAGGAGAGGGATTATGTTATAGCTTGTGAGCACAAGTCCCAAGTCAATAT
TTCTGCGGCAAAAACCTTCTTCAAAAATAAATGTAC

Sequence 2591

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCCCTCTTCCCGCTGAAG
GGAAATTCACAGAAGCTATAGTTGATGCAGAGCCGAAATATCTGATAGTTGNGCGACCTG
CTCCACCTCCAAGTCAAAAGAAGTCATGTTCAAGTAAACTCGTTCTCGAAACCTCTGC
AGCTGGTGGTTGGCACTCTGACACCGAGCTCGGTCTTCTGTGATGGGGTTTCTCATCA
ACCCACACCATGACTGGACATTGCCAAGTCACTGTCCAATGACAGATTTTATACAATTC
GCTATCGAGAAAAGGATAAAGAAAAGAAGTGGATTTTTCAAATCTGTCCAGCCACTGAAA
CAATTGTGAAAACCTAAAGCCCAACACAGTTTATGAATTTGGAGTGAAGACAATGTGG
AAGGTGGAATTTGGAGTAAGATTTTCAATCACAAAGACTGTTGTTGGAAGTAAAAAGTAA
ATGGGAAAATCCA

Sequence 2592

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGAGGTACGCGGGGGCTG
ACTCCTTTTTCGGACTCAGTCTGCCTGCACCCATGTGATTAAAAAGCTTTATTGNTCACA
CAAAGCCTGTTTGGTTATCTCTTACACAGACATGCGTGACACTTGGTGCTGAAGACCCG
GGATGGGGGACTCCTTCGGGAGACTGGTCCCTGTCTCACCCTCACTCCATGAGGAGAT
CCACCTACAACCTCGGGTCTCAGTCCAACCAGCCTAAGGAACATNTNACCAATTTCAA
TCAGATCTTGGCTTAGTGGCTGAAGACTGATGCTGCCCAATTACCTCGGAAGCCTCCTGG
ACCATCACAGATACTTTGAGTAATCTCTTATAGTGGAAGGATGCAAAGTTGGAATAA

Sequence 2593

TABLE 1
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CCGGGCGANGGTACCATATGTTTCAAAGTAGCTGTTTCATCCACAGATAAAGAGATCAAGAA
ACTCTCATATACATACACTAGGAAATATTCTCCAGCCATCAAAATAATGAAGCAGTGTCA
TTTAGAGCAACACAGATGAACCGCGGAGACCTGCCTCCTACTCCACCATCACATGGAACC
CACCAGTGTCTCTCCGAAGCTCGCTCTGACCACGCCGCTGCTGCTGCAGGGGCTCGCAG
GAAGTGCAGTCTCCCCCGCGTACCTN

Sequence 2594

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTGGTATGTTTTGTCTTG
AAAAGAGGTTTTCTAGCTAGAAATTCGGGGCCCAGAGGTCAAGGCTCCAGAGATCCCCT
TCTCATCATCCTTCAGTTGTCTGAGGAGACAGAGGATCACATGTGTCACAGTGAGTGCTG
ATTCCCCAGAATCTGCAGTCTTAAGCTCCCCTGCTGACGCACACAGCCAGTTCTCTGCTT
CATATTCATGTGACCCACTGTGAAGTGACAGGCAGCTGCCAATTCTGTCATATAAGAAGC
AGCTCTGCCCATGCAACTTTGAAAGTTCCTGCACTTCTCCATAGACTGCTCCTTCATGGA
AATAAACACATCATCACTGTGGGTGCCTAAGCTAAGTTTGTTCAGTTTGATGATGC
CCAGCTCCTTTCAACTCAGCCTTAATTGGCACTTA

Sequence 2595

CGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACTTTTTTTTTTTTTTTGA
GACAGAGTCTAGCTCTGCGCCCAGGCTGGAGTGCAGNGGCACCATCTCGGCTCACTGCAA
CCTCCACCTCCTGGGTTCAAGCAAGTCTCCTGCCTCAGCCTCCTGAGTATCTGGGATTAC
AGGCACATGCCACCACGCCCGGCTAATTTTTGTATTTTAGNGGAGACGGGGTTCACTT
GTTGGTCAGGCTGGTCTCAATCTCCTGACCTCGGGATCCATCTGCCTGGTCTCCCAAAG
NGCTGGGATTACAAGGCGTGAGTACCGTGCCCGGCGAGAAGCAACTCTTAAATACTTT
ATTCTTCTCTAGGACCCTTTAAATGGTGAAAATGGGCAGATGAGTAGCAATAAGTGGA
CCTTTGTTACTCTTCTGAGTTAGAAAAATTCTAATTTAAGTACCTCGGCCGNTCTAAAC
TAAGTGGATCCCCCGGGC

Sequence 2596

ATTGGACCTNCACCGCGGTGGCCCCGCCGGGNANNAACCATAAACCGTNGCAGNCTCAGC
ANATATTTTCCCTTCCTTAAGTCAGTAACCTTTACCTTTTCACTTACAGGAAGCACTTTA
CGGCTTCTCTTTAGCATATGCAAATTGCCAGCATTACCACTCTTGGACTTTGGGGCCACT
GTTAAGTAAGTAAGGGTTACTTGAACATAAGCACTGTAGGCCGGGGCATGGTGGCTCAC
GCCTGTAATCCCAGCACTTGNNGTAGGCCAAGGTGGGTAGATCACCCGAGCTCAGGGAGT
TCGAGGACCANCCTGGGCCAACATGGTGAAAACCCACCTTTACTAAAAAATACAAAAA
TTAGCCAGGTTTTGTGGGCTGTATACCTGGNGATGCGCANCCTATTCAAGGAAGGGCT
ANAGGGCAGGGAGAAATCGCTTGGAACCTGGGGAGGCCGGNANGTTGCAGNTGAGCCCAA
GAATCCGTGGCCCACTGCACTCCAANCCTGGGGTGACAAGAAGCCGAGGACTCTGGNCTC
AAAAAAAAAAAAA

Sequence 2597

CCGGGCAGGTACTTCTTGATTTTCATCATACAAGACAAGCACAAAAGCACCACCCATGCCT
CTGAGAACATNGGACCATGCACCCTTGAAAAAGCTTTGCCTNCTTCATCACGAGCAATC
TTCCGCCAGCAGTCAAGCCGTGCCTGTGTACAGATGGGGTTTTGCCATGTGGACCAGGCT
GGTCTCGAACTCCTGGCCTCAAGTGATGCACCTGCCTCGGCCTNCCGAAGTGCTGGGATT
ATAGGAGTGAGCCACCACGCCCGGCTACAGAGTTGGGTTTTAACAGAAAGAGGACCTTGAA
TGCTGAAGCTTACAGGGCGGCCAACTAAGTCTGCTGATTTTTGCAAGACCACAGTGTA
AGGTCGGATGTCCACCTGAAGAAGGGGTGGGTGCAACTCTCTGGGTGCTGCACACACCAT
GACCAAGCCTGGGCATGCAGCACCCAGCTCCCATNCATTCACTGGTTGCTTTGTGAG
GTCATTTTGAGAGGGCTTTANAGCCTTTAATGAGAA

Sequence 2598

AGGTACCTTTGACCCATCATCTTGGGAGGTGGGGAGGACCNCGAGGGNCCAGGCAGGGTG
TAGGGGAATGTATTAGNCCAANGAGATTTCCCTCTTCATCCGAGCAGNGTATCTATTCT
ATACCTGGCTATGGGAGAAGACCCCTTGCTGAGGGAGGCCCTTGCTATGGCCCCCTTA
AGCCAGGCAGTGGGGATCTACCTGNGGCCCGGCCCTCCCTAAAGTCATTACATTGAATG
GGGGGATGAAGGNTCGGGACAGTGGCTCATAAGAGCCCGAGTATTGAGCCCTAANCTGTG

[illegible]

TABLE 1

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GGATCCCCCCCCGGGCTGGCAGGGAAATTCGGATATCNAAGCCTTATCGATACCCGNCCGA
ACCCTCGANGGGGGGG

Sequence 2604

CTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAGCGTGGAGGGTTTAGGCAGCGTGTCT
GATTCTTTGCGGGACGGCGAGCGCATTGTGCTTTGCCCGCCGCGGCCTAGGAGGCCTTT
TGAGGCCGCGTAGTCGGTGTTTTTGAACCTACTCTACAGCTTCTGGCAGGCCGTGCGGCG
CCCTGACCCGCGCTCACCATTGTTGGTGCTGTTTGAACGTCTGTGGGTACGCCATCTTT
AAGGTTCTAAATGAGAAGAACTTCAAGAGGTTGATAGTTTATGGAAAGAATTTGAACT
CCAGAGAAAGCAAACAAATAGTAAAGCTAAACATTTTGAGAAATTTTCAGGATACAGCA
GAAGCATTAGCAGCATTCACAGCTCTGATGGAGGGCAAAATCAATAAGCAGCTGAAAAA
GTTCTGAAGAAAATAGTAAAGAAGCCCATAAACCGCTGGCAGTAG

Sequence 2605

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTGGGTCTGAAGGGGTAC
TCAAGCGCTCTGCTATCTCTGCAGCTAAACGGGTGTCAGGTTTTAGCTGCTACTAAAG
ATAATGAGCATAAGCGTTCACCGACCAAGACTCCAGCCAGAAAGCCTGCACATGTGACCG
TGTCTGGGGGCACCCCAAAGGCGAGGCTGTGCTTGGGACACACAAATTAAGACCATCA
CGGGGAATTCTGCTGCTGTTATTACCCATTCAAGTTGACAAGTGTCTCGTCCCCTCAACT
CAGTCTCCAATAAGAAACAGNGTTTGATCTTAAAGCAAGTTTGTCTCGTCCCCTCAACT
ATGAACCACACAAAGGAAAGCTAAACCATGGGGGCAATCTAAAGAAAATAATTATCTAA
ATCAACATGTCAACAGAATTAACCTTNTACAAGAACTTACAAACAACCCCATCTTCGGG
ACAAAGGAAGAGCAACGGAAGAAACGCGAGCAAGAACGAAAGGAGAAAGAAAGCAAAGGT
TTTGGGAATGCGAAGGGGCC

Sequence 2606

CCGGGCAGGTACTTTTTTTTTTTTTTAAACATCTTTGTTTTTAAATAGAATGATAGAAC
TTTGCCAGTCTTTAAGATCTTGCTTAATTTAATGTATTAATCTGTTTGTGCAAACATAA
TACCACCATTTAAATGTTAGGGGATGAGTTGCAGTTTTTATAATAGATTTTTTTTTA
AAGTTTGGTATTGTAAACATTACACCTCTGTCCCTCAAATTGATAATTACGTTTTAA
AGNGCAGNCATTTGNGGTNTAGAAATCTGTTTTGTTTTGCTTCCATTATTGAGTTCCTC
CTAAGGGAAAATTGGAGGAGAAGGGGACTGGAATATGAAAGCCCCAAATTCATATAAAA
AGTTTGCAGTTNTAAGGTTTGTATTAATAAATAGNATATTATTAANGAAAAAATTTTTT
TCACTTGATGTTTTGGTTAG

Sequence 2607

ATATGGGCGAATGGACTCCCCGCGGTGGCGGCCGGGCAGGACTTTTTTTTTCTTTTTTT
TTTTTTGGAACTTCCTTTCTTAGTTGTTGTATTCTTGAAGAGCCTGGGCCATGAAGA
GCTTGCCTAAGTTTTGGGCAGTGAACCTCCTGGATGTTCTGGGCANGTAAGTGTTTATCT
TGGGCTGCAATGAAGCCAGCCGAAGTCCATCCCTTGGGCAAGGGCCGGGCTTGTTGGTG
GGTTTTTGGAAAGAAGTTTGGGACCAAGGGTCTCCTCAAGGGGGAAGCCGGGGGGGG
GGTCTTCCCTCGGGCTCTNNGGCCGCTGCCATATTTCTCCTTGCCTTGGGCCGAACC
GCCTGCTTGAATACCTTGAATTGTTTTCTTGCCTTGCTTGGTTGTTTTACCTAAGGANA
TTTCCCTCAATAGTAAATGTGTTTGGTAAATTTAAACCTAATAATCCTTTGGGCTCAATT
TTCAATCCACCTCTTGTTCAATCAAGCAACTTGNTAANGATTCTTTCCCCCAAAATN
GAATTTGGCTGGCTTGGGCAAAGGGCCTTGAAGCAAATTCNATTGGTTTTAATCTTGCAA
ACAAGCCTGAACCTTCTTTTTCAAGGGTCCCCACCATTAAAGGGAACATTTTNAATCA
AGGATGTGGAATT

Sequence 2608

CGCGGTGGCGGCCCGCGGCAGGTCAAACGATGTGTCCGTGATGACTGGTGGGGCTCATG
TAATCCCCACCTAAGAAAAGTAGAAAGTGCAACTTTATCTTTTAGGTTAATAAGTGCTGA
GAGATGGAGTTTTTCTTCTCATTTTGATGGAGATGCCTAGAAAACCTCGCCTGACACT
CTTTGTCCAACGCAGGATAGAGAACATAGCAACAGAAAGGGTGAGGCAAAGGCATGGCT
GGTNAAGGCACTGCATGTTATTAAGGATGNGGGCCTGGTCTGTTGNTTCACATGT
TTTTCTNTTTTTATACAGAAATAGGAATCTACCAGACAGTAATAAATGCCACTTCTCAC

TABLE 1

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AGAAAGTCTGACAGGCTTCCACTGCCTCTGAGAGAACAACAACATGTTGGCTCCATAACA
TAAAGAAAAACAATGCTGGGTGCGGTGCGGTGGCTCGTGCCTATGATCCCAGCACTTTGG
GTGGCTGAGGCAGGAGGACTGCTTGAGCACANGAGTTTGAGACCAGCCTGGCCAACANGG
CGAAACCTTCTCTNTACTAAAAATNCAAAAAAAAAAAAAATTAGCTG

Sequence 2609

TCACCGCGGTGGCGGGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTGTG
GAGACAAGGATCTTGCTCTGTCAACCAGACAGATGTGCAGTGGCATAATCATGGCTCACT
GCAGCCTCAACCTCTGGGGCTCAAGCAATCCTCCTGCCTCAGCCTCCCAAGTAGCTGGGA
CCACAGGTGTGACCCCCACTCCTGGCTAATTTTTTTATTTTTTGTAAGATGGGGNCTT
GCTATGTTNCCAAGGTAGTCTNAACTCCTGGGGTCAAGCGATCCTCCTGCTTAACT
NCCAAAGCACTTGCGATTGAGNGTGAGCCACCAAGCCCAGCCCCAGCACCCTTTTAACT
TAGCTGCATAATCTTGGGTAACTACTAACCTTTCCAAAGTACCTCGGCCGnnnnnnnnnn
nn
nn
nn
NATTGCCCGCTTGGNGNAA
TCATGGCAAAGCTGTTTCCGGGNGAAAATGNTTATCCCGTTACAATTNCCNAAANATAC
NAACCCGGGAGCNTAAAGNGTAAAGCCNGGGGGGCCANTGGGGAGCTAACTACAATTAAT
GNGTTGGGCTACTGGCCNNTTCAATGGGGAAAACCGGNGCCACTTNNNTANTGAATCGNC
ACCCCCGGGGGAGGGGGTGGTTTTGGCCTTTTCTTCTNGTAATANTNNTNGCCGGGGT
NG

Sequence 2610

GCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAATGAGATGGATACAATTAGTNAAAC
CTTAAAAATTAAGCTGTAGACAACAGAAGGNAACTGGAATCCATTACAATTCAA
AAGAATCACTAATAACAAAATTAATGTTTCATCACTTCATTTATAATCCATTNNGCCT
ACATNGCNTAACTAAANTGACACATGTCCCCGGGGGCTGCAGGCGTNGCNCAATCTTCG
CTCTGAGGNGCTNTCTTAACCGNNANACCCTGGAAGCGGGCAAGTCTCTTGCTGTGTCGG
GACCTTGACAGNCCCTGGCCCTTCCGCCACCATGGGAATACCTNNGGCCGTTCTAGAACTA
GGTGGGATCCCCCGGGCTGNAGGGAATNCNNTATCANGCTTATCGATNCCGTCGACCTTG
AGGGGGGGGGCCCG

Sequence 2611

CCGCGGTGGCGGCCGAGGTACCAAGTGTGGGAAGATGTTGAGCAACTGGAACCTCATGCGT
GGCAGGTAGGGATGTAAATGGCACAAAGACTTTGTAATACTTTGGCAAATNNNAAA
AAGNAAACACATAGCTACCATACAACCCAGCCATCCCACTCCAGTATTTAACCCAGGTGA
AATGAAAACCTTATGTCCAAACAAAGACTTGACTTTTCTATGATGACCCGGGCGCGCTTC
TTTAACGNTTTTNGGTGCGAACCGCNGCCCATGTTGGCGGGTCCTTGGTAAAAGACCCCG
CGTCTGCCCCGGGCGGCCGN

Sequence 2612

GGAGCTCCCCGCGGTGGCGGCCCGAGGTACANGAAAGTCTAGATGATCTTGTAGTGCCAG
AAAGTAAGAAAGTAATAAAAAGATGACAGGTCTGTCAATGATACAGAAGCCAATGTGA
CAAAGCTCTCAATAGTTAAATCTCGAATTTGAGTAGTAAAAGTGACACAGTTTTAGATTA
TAACCCAAAGAACTAAATAAATATCCATGAGCCCTATTGATATAAATGACAATTAAGGGT
TTTTTGTTTTGGTTTTTTGGTTGCTTTGGTT

Sequence 2613

GAAACCTGTGCTGCCAGCTGCATTTANTGAATCGGCCAACGCGCCGGGAAGAGGCGGT
TTGCGTATTGGGGCGCTCTTCCGCTTTCCTCGCTCACTGACTCGCTTGCCTCGGGTCC
GTTCCG

Sequence 2614

GGAGGCGGCCCGCGGGCAGGTACTTTGTTTCTTTTTTTTCTTTTTCTTTTTTAAGACA
TGGTCTTGCTCTGTTGCCAGGCTGCAATGCAATGGTGCCACCTCGGCTCACTGCAANCC
TCGACCTCCTGGGTTCAAGCAATTTTCTGCCTCAGCTTCCAGGTAGCTGGGATTACAGG
CGCCCGCCACCACACAGGCCACATCTATGTATTTAGAGACAGAGTCTTGCTCCACCTGG
GAGACAAAANCNGACCTCCGTTTAAAAAAAAAAAAAAAAAGGGAAAGGAAAGGAGGAATTT

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CTCCCGCGGTGGCGGCCGGGTACTTTTTCTTTCTTTCTTTTTTTTTTTTTTTGAGA
CGGAATCTTGCTCTGTCACCCAGGCTGGAGTGCAGTGGCGCAATCTCGGCTCACTGTAAG
CTCCACCTCCCGGGTTCACGCCATTCTCCTGCCTCAGCCTCTTGAGTGGCTGGGACTACA
GGTGGCCACACCCAGCCTGGCTACTTTTTGTAATTTATTAGAGACGGGGTTTCAC
TGNGTTAGCCNNGAATAGGNTCGATCTCCTGCCTTGNATGATGCCCCCTTGGCCTTGA
GCCCTTTTTGACCTNAAGGACCAGCACTGGAATAATGTTGGGANNCCCNCTGCTTTTNAAG

TABLE 1

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GCAGGCTTAGGGAGCAGGAAAGCATACAGGTGTAGCAGCCTTTCCAGCTGATCCCCATGC
CCTGCTGCACCTGGAGGGCTGGAACAAGCTATTCTCATATTGGGGAAAAGGGCTGA

Sequence 2620

CTCCCGCGGTGGCGGCCGGGTACTTNGTTCCTTTTCTTNCCTTTTTTTTTTTTTTTTGA
CGGAATCTTGCTCTGTACCCAGGCTGGAGTGCAGNNGCGCAATCTCGGCTCACTGTNNG
CTCCACNTCCCGGGTTCACGCCATTCTCCTGCCTCAGCCTCTNGAGTGGCTGGGACTACA
GGTGCCCAACCACCGCCTGGCTACTTTTTTTGTATTTTTATTAGAGACGGGGTTTCAC
TGNGTTAGNCCCGGANAGANTNGATCNCCTGACCCTGGNACTGGCCCCCTTGGCCCTCT
AACCCTTTTTGACCCCTAAGGGAANGTACTGGAATATTGTNTTGGGNNCCCATGCTTNTG
NGGCAAGGCTTAAGGGAGCAGGAAAAGCATACANGGTGTAGCANCCTTTCCAGCTGATCC
CCATGCCCTGCTGCACCTGGAGGGCTGGAACAAGCTATTCTCATATTGGGGAAAAG

Sequence 2621

NCCGCGGTGGCGGCCCGGGCNGGACCTGTTTTATCCCAGCTGAGAGGCAAGGAGAACC
TTTGTCTTAAAAATAAGCTGGTTTCAGCCAGGTGCGGTGGCTCACGCCTGTAATCCC
AGCTCTTTGGGAGGCCGAGGCGGGCGGATCACCTGAAGCCAGGAGTTCGAGACCAGCCTG
GACAACATGGTGAGACCTTGTCTTTATTAATAATGCAAAAATTTGGCCAGGCGCCGNGGC
TTTACCCCTTATTCCCAGCACTTTGGGAGTCCANGCAGGTGGATCACAAGGTCAAGAA
ATTGAGACCTTCTTGTTTACACCAGGGAACCCCTTCTTCTCTAAAAATTTNTAAAAAC
CAAANTTGCTGGCATGGNNGGGGGCACCTGTAGTCCTAGCTACTTGGGAGCCTGAGGCANG
AGAATGGTGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCCGAGATCGCACCACCTTGCA
TGCAGCCTGGGGGACAAGAGTGAGACTCCCTCTCNAACANAAACAAAACAAATTNNCC
NAGCGTGGTGAGGCCCTTGAGGCANGANGAATCACTTGAACCCCGGGG

Sequence 2622

GGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGANGACCTTAGAAAAAGGAG
GAAAGGAGGAGAGGCAGATAATTTGGATGAATTCCTCAAAGAATTTGAAATCCAGAGGT
TCCTAGAGAGGACCAGCAACAGCAGCATCAGCAGCGTGATGTTATCGATGAGCCATTAT
TGAAGAGCCAAGCCGCTCCAGGAGTCAGTGATGGAGGCCAGCAGAACAACATAGATGA
GTCAAGCTTTGCCTCCCCCCCCCTTAGGGAGTTAAGCCAAAAGCTGGACAAATTGCCCA
GAGCCTGTGATGCCTTCTAGCAGGGAGAGCAGATGGAAATCCACCTTGTAGAGGCTTCC
CCAGAAGAACCTCAAATTCTGTCAGCTNATACCAGAAGTTAGAACTTCTGCCAGAAAAA
AAAAAAAAAAAAAAGTACCTGCCCC

Sequence 2623

TGGAGCTCNCCGCGGTGGCGGCCGAGGTACTTCNTTTTTTTTTTTTTTTTTTTCTTATTT
AGGGGAGAACTTTTACCTTTTCACTTAATGCACTTCTCTTTGGTGTATCTGTNTTNGNG
CAACACTACTCTTGCTCTTNAGGGCCATTAANTAAAATAAGAGTTACTCAGGCTGGGTGC
AGTGGCTCATGCCTGTAATCCAGCACTCTGGGAGGCCAAGGCGGGCGGATCATGAGGTC
AGGAGTCAAGGGCAANCCGGCNAATNNGGGGAAACCCCAANTTTTTCTAAAAATACAAA
ATTCNTCCNGGCAATGGGGGGCANNATGCCTNAAATCCCAANANACCCTNAAAAGGCTNNG
GNCNGGGAAAANTNTTNTAANCCAGAAANCCCCGGGNGGNGGGGNGNTGNANATANGCC
CAATANCCCCCNNTTNNCNTNTNCNCCCCGGGGGAANNNTTGAANNCTTTNTNTNAAA
AAAAAACNAAAAAGNTNTCNCTNTNCCCCCNGGNAANNNGANACCTCTTTTTTTT
CTCCNCCCNNTTTCNCTGGGGGGGNGNAATNTTAAAAANAANCCNCCCCNNGGN
GANANAATNTNANTTTTTTTTACCCCCCNCGGGG

Sequence 2624

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAACATACTGCTTTGATTGATAT
ATACAAAACACCACCTNCTTTTGATGGAAACGGGGCCAGAGCAGATCCTGNGATGAGG
ATTAATGTGCAATTCATGTAATNTATANCAGTNTTCAGGANGTGCTCACAGGATAAAC
CAATGAGGGAGNNGGTTTCAAGGGCNGGACAGGGAAGGGAACCTAACTGNGCAAGGGACNN
TTTNNGGGCANGGNNCGNCTTAAGCCTANTCCCGTTGGGAGCTCTGGACATACATNAGG
CTTCAAAGNTNGGNNCAACTGGGNGCAAAAAACCTGGGCTGTTTATGCCTGCACCCCTT
TAGGCACCCTAAGCCCTACTTTGAAGTNTTTATTTTAGCTCTCAATGTGTTGAACCTATA

TABLE 1

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AGGAAATTAAACGTTTCATGAGTTAAG

Sequence 2625

TCCCCGCGGTGGCGGCCGAGGTACAGATAATTCAAATCTATTATCTAATGTATTAGGTTA
ATTTCTATTTGTTCTATACTTTTTTTTTTTTTTTGAGATGGAGTCTTGCTNNGTCGCCCCA
GGCTGGAGTGCAGNNGGTGCAATCTTGGCTCACTGCAAGCTCCGCCTCCTGGGTTCATGCC
ATTCTCCTGCCTNNGCCTTCCAAGNAGCTGGGACTACAGGTGCCCGCCCCGACACCTGGC
TNATTTTTAAAAAATTTTTAGTAGAGACAGGGTTTACCGGGTTAACCAGGATGGNCTC
NATCTCTGACCTCGGGATCCCGCCNNTTTGGGCCTCCAAAAGACTGGGGATTACAGGGCG
GTGAGCCACCGACCCGGCCTATTGACATTTTTTAAGGGTCAAGATTTTCTTTGTGTGTC
TAGTAATTCGTCTTTTATTGCAAAGATAATTGCTTATTNGACTNAGAAAAATGATTTGT
GGGCATACAATATTGTATGTGGTACCTGCCCGGGCNGCCGCTCTAGAACTAGNG

Sequence 2626

TTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGATAATTCAAATCTATTATCTAATGTAT
TAGGTTAATTTCTATTTGTTCTATACTTTTTTTTTTTTTTTGAGATGGAGTCTTGCTCTG
TCGCCCAGGCTGGAGTGCAGTGGTGAATCTTGGCTCACTGCAAGCTCCGCCTCCTGGGT
TCATGCCATTCTCCTGCCTNNGCCTTCCAAGTAGCTGGGACTACAGGTGCCCGCCCCGAC
ACCTGGCTAATTTTTAAAAAANTTTTTNAGGAGAGACAGGGTTTCACCCGTGTTAGCC
AGGATGGNCTCGATCTCCTGACCTCGGGATCCCNCCNNTTTGGGCCTCCCAAGGACTGGG
GATTACANGGCGGTGAGGCCACCGCACCCGGNCTATTGACATTTTTTAAGGNNTTCAGATT
TTCTTTGNGNGTCTAGNAATTCGTCTTTTATTGGCAAAGATAATTTGCTTATTTGACTT
AA

Sequence 2627

GCTCCCCGCGGTGGCGGCCGNGGTACAGATAATAACATCTGATATCCACATGGGGTCTGG
AGGTGCNAGCCACCTTCCTTTCATCCCACGGTCTCACAGCAGCCCTGGAAAGAGGCTGCT
CTCTGTTGGAGGCTAAGGGCCAGTGTTGGAAGGAGCTCTGGTGGAAAAGTGTTGGTCTGCA
TGANGGGCTCCCATGAATNAGAGGATAGGGGTGGCNGGTACCTGCCCG

Sequence 2628

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGATCCCGGCAGCAGCAGGA
AGAAGACGGACCCCGCATGAGGGCGGCGGCANGGAGCACCTTCATGTTGCGTTCGGAGC
CCCGCGTACCCTATGGACAGTTGTGTCCCAAGGAAGGATGAGAATAGCTACTGAAGTCC
TAAAGAGCAAGCCTAACTCAAGCCATTGGCACACAGGCATTAGACAGAAAGCTGGAAGTT
GAAATGGTGGAGTCCAACCTGCCTGGACCAGCTTAATGGTTCTGCTCCTGGTAACGTTTT
TATCCATGGATGACTTGCTTGGGTAAGGACATGAAGACAGTTTCTGTATACCTTTTAA
GGTATGGAAGAGTCGGCTTGACTACACTGTGTGGAGCANGTTTTAAAGAAGC

Sequence 2629

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACCTCATCCCCTCAG
TGACTAAGAATTGCAGNATTTAAGAGGTAGCAGGAATGGGCTGAGAGTGGTGTGCTTT
CTCCACCAGAAGGGCACACTTTCATCTAATTTGGGGTATCACTGAGCTGAAGACAAAGAG
AAGGGGGAGAAAACCTANCAGACCACCATGTGCTATGGGAAGTGTGCACGATGCATCGGA
CATTCTCTGGTGGGGCTCGCCCTCCTGTGCATNGCGGCTAATATTTGCTTTACTTTCCC
AATGGGGAACAAAGTATGCCTCGAAAACACCTCAGCCGCTTCGTGTGGTTCTTTTCT
GGCATCGTAGGAGGTGGCCTGCTGATGCTCCTGCCAGCATTTGTCTTCATTGGGCTGGAA
CAGGATGACTGCTGTGGCTGCTGTGGCCATGAAAACGTGGCAAACGATGTGCGATGCTT
TCTTCTGTATTGGCTGCTCTCATTGGA

Sequence 2630

CCGCGGTGGCGGCCGCCGGGCGAGGTACAGATAGCAAAGACTGGGACCACAGTGGAGGGAT
GCCTAATCCAGACAAGGGCAGGAATAGGCAGGGAAGGCTTCCTAGAGGAAGTGATTTCCA
AGCTGAAACTTGACAGATGGAACAGAAGNTAGCCAGAGATGGGAAAACTATTTTTGGTCA
ATGGAAGANCAGGTGGTTGAGATAGAATCTGACACATGANAGCAAAAAAAAAAAGTCCANN
GNTGGGAGAATAACNGNGTGAGAATAAGACAATNTTAACTGGCNATATAAGTAAGNGATC
ATCAACAAGGCTTTGTAGGACATAGTAGGGAGTTAAGACTTTTTATTCTGAGGGCAATGG

TABLE 1

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GGAATCACAAGAGGGAGTTAGGCACTNTACACAACTTC

Sequence 2631

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGCAGGCCTCCTACACCT
ACCTCTCTCTGGGCTTTTATTTGACCCGNGATGATGTGGCT

Sequence 2632

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGTGGATATCATACGAAAGTGT
AGTTTCAAAGGAGATGGACAAACGATACCTACAGTTTGATATTAAGGCCTTTGGNGAAAA
TAATCCTGCCATTAATGGTGTCTACTCCAGGCTGTGACAGAGCAGTAAGACTAACGAA
ACAAGGGTCAAATACATCTGGATCTGATACACTCAGCTTCCCATTGCTGAGAGCTCCTGC
TGTTGATTGTGGAAGAGGACACCTCTTCTGCTGGGAGTGCCTTGGTGAAGCACATGAGCC
TTGTGACTGCCAAACATGGAAGAATTGGCTGCAAAAAATAACCGAAATGAAACCAG

Sequence 2633

AATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTTTTTTTTTTTTTTTTTTTTTTGAGA
CGGAGTCTCGCCAGGCTGGAGTGCAGGGGCNCAATCTGGTCTCACTGGNNGCTNNGCCT
CCCGGGTTCGTGCCATTCTCCTGCCTCANACTGTGAGTAGCTGGGACTACAGGCACCCA
CCACCAAGCCCAGCTACTTGGGATCGCATGAGCCTGGGANNTTGGAGCNGCAGTGAGCCA
TGATCACTCCAGCCTGGGCAACAGANNGAGACTCTNTCACAAAAATTAACTTTACTTAAT
TACTTTTATTATTGNCATAATCGCTCCATTTTATTGTTGTTTGTGTTGTTGTTGNAACCAA
ATTGTAAACCATTTTATNTTTGTTGCAAAACCAAAAAGTTTCTGAGACAGGTCTTAATT
TATTTAGAAGTTTATTT

Sequence 2634

TGGAGCTCNC CGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTGTGATAAG
GCTAATATTTTTTAAAGGAGGCACAGTGAATTTAAGACATTGACATTTATAGCCGTAGC
TCGACGCTTACTCTTGGAGGCCAATTATCATCCCTGTCCATCTTGAAGTGTGATGTCT
TCGTGATCTTCTAGACCCAGCTAACTGTGCCATCTCCTACTCCTTTCTGGCCTTCTTCG
AGTTCTTCCAACAGTCGGAATTGCGAGGGACTTTTACTCCCGAGCCCGTGGTGGCTGCC
ATCTTGCGTGTGCTTGAAGGCCGGCCCTTCTCCCCGCGTCTGCCCGGGCGGCC
GCTCTAGAACTA

Sequence 2635

CTCCCCGCGGTGGCGGCCGAGGTACTCTCCGCCTAAGTCCATAGAGAGGCTAACACCCT
TCTAGTTTATTAGTCTTTGNTAAACCTATGAAATTTCTGAATNTAATGGCTANNTTATATG
CANNGTGGAGGNCACNCAAAAATGTTTCTCTCAACAGCTGTGATAAGTATAGGCTTATTT
TGATGTCTAAAGATCTGNTACCTGTATCTGNTTTCATCTTTCAACACAAATTCATGGGAA
NNTTAACTATGNNCCTGTGNTCNGGACAAGTGTGCATGAGAACATCATNCACTAAGTTTA
TCATNAAATGGGAAANGAAGCAGACNTTTTAAAGCACCCAAACCGCCGCTCTAGAAC
TAGTGGA

Sequence 2636

AGGTACGCGGGGGCTGACTCTCTTCTCAGATTGAGCCAGTTGCACCCAAGTAAATAAA
CAGTCTTGTTGCTCACACAAAGCCTGTTGGTGGACTCTCTTCATATGGACTCATGTGACA
TTTGGNGCCGAAGACCTGAGACAGGAGGACTCCTTTGGGAGACCGGCCCTGTCTCGCC
CTNNTTCATGAGATCCACCCATGACCTTGGGGTTCCTCANCCCAGCNCGAANGAAGTCT
TCACCAANTTTTAAATCGGGGACCGCAAAGCCAACAAGAATGAAGAAGTGNCAGGTATG
GTGGCTCATGCTGTAATCCCAAGCACTTAGGGAGGCCGAGGAGGAAGAATTGCTTGAGG
CCNAGGAATCCCANACCAGCCTTGACAACATGGCAAAATNCCANTNTTTTCAATNANA
TTAAAGNAAANAAATTAAGTTACCTGCCTNNGCGGNGCTTAGNAAGTGTGGAN
CCCCCGG

Sequence 2637

TTAGGGCGAATTGGACTCCACCGCGGTGGCGGCCGCGCCGCGGCAGGTACACGGTCAGTCCG
GGTCTTAAGGGCGCAGGGTAGGGCATNCCACTGGGAGTTCAAAGGGGAAACNAAGATGGT
TCCCACTGCTGCTCAGACAGTGTGCTAAAATTCCTCACTCATTTTCAAGTCTTGTTTT
ACATAATGGCTTTTAAAGCAACTTTTGTAAATGCTNCTGATNCTTTAATNCAACTATTA

TABLE 1
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ATGTNCCATTTTGGTGACATCTGGGTTTTTCATACANAAAAAAAAAAGTCAAAAAGGGGA
AACAAAAANATATTTACACATTTTATATATAAACTTAAAAACCTTGACCTTN

Sequence 2638

CGAGGTACTATGGCAGTTTTGCCTCAGGTGCTGAACATTTCTCAGCCCTGGCTAAAAGGG
AGCAGCACAGGGAGAGAAACAGGATAGGAAAGCAGAATGGCGAGCAGCCTATGGCCCAGG
GCCTGTAATCCCTTCCCAAGACTAGCTGCTCAGGGTGGTGCAGGGACAGGACCAGACCCT
GCGCCTATTTCTGCCTTCTTCCCTATAGGGAAGTCTGTAGGCTGAGCCACTGTCCTGC
TCTTATGACATTATCTTGTGCCTTTCTCCTCAGCAGTGAGCAGTGAGCTACTCCTGGC
CCAGGCCCTAGGGGAAATGGATCAGTCTTTGAGGTTTCTATTTGGGGAGGGGAGTACCTG
CCCG

Sequence 2639

CCGCNTGGCGGCCGAGGTACTTGTTTTTTTTTTTTTTGAGACAAGGTCTCGCTCTGTCA
CCCAGGCTGGACTGCAGTGACATGATATCGGTCACTGCAACCTCTGCCTCCTGGGTTCAA
GGGTGATTCTCGTGCCTCAGCCTCTCAGGTAAGTGGGATTACAGGCATGCACCACCATGC
CTCGTATTTTTTTGCGTGTGTTTTAGTAGAGACGTGTTTCACTATGTTGTCCCGGGCT
GATCTCCAAGTCTGTAAGTCAAGTATCTGCCCGCCTCAGCCTCCCAAAGTCTGGGAT
TATAGACATGAGCCACCACACCTGATGTCTGATGCTTATTTATTATGTGACCTTAGCGAA
GTGTGGTAGTCATTAAGTGCTGGTCTATCTCTATACCTTCCCCAGGCAAGGTAGGATTGC
ACTTNCCGCTCCACTTGTTGATTAGGTGGAGCCATGTGACTACTTT

Sequence 2640

TGGGCTCCCCGCGGTGGCGGCCGAGGTACTAGAACTTTCCAAGGAGTCTTGGGTGTGTA
GCCAAGAGGAGCCATGAGCTATGGACTCCTCAAGCACGGGAAGAGGAGGTGTGTGCTGAG
AACAGAGAGGCCCTGCCCTCTGTCCACTAGCGAGAATCCCTAGCTGCCCCAGCCAGTCT
TTCTCCCCGGCATTACAACTTTGCAAGCGTTGGTCCAGGGCCCTTCTCCAGATCTGTT
NCAACTTTGNAGAGTGAAGGGCTTGAGCATACGGGGGAAGAGAGTCTGCATNANGTTAGG
GGGAAAACTTTTAAAGATACCCTCATTGTGTCAAAAGAAGTGTGCCAATCTATTTTTGT
ATCAGCATTGGGAAGNGCACTTTCCCTGGGGCCGTGTGGGTGNGTGAATGTGCAAGTGT
CTGAGAGATACTGCATCAAGCCCTAGACCCTCAAGAGCCAGTCCCGCCCTTTTACAGAGC
ANTCCCTTATCCTGGGGCCATGGGTGAGGCTGACCTTCAA

Sequence 2641

CCCCGCGGTGGCGGCCGANGTACGCGGGGACTTCGGGCTTGTTGCTGGTGGCGTNNGA
GCCNAGCCCGGACTGGTCAGGATNGATCACGGACGTGCAACTCGCCATNTGNNGCCAACA
TGCTGGGCGTGTGCTCTTCTGNTTGTNGATCTCTATCACTTACGTGGNCNGTCAAACA
ATTCCAAGAATGCANGAATGAAAGTTGGCGCTTTCTTCCGCCCCANGGTCCCAGGACATT
AGTCTGNGGCANGATNGAGGGTNTNGAAGGGGCCTTTACACTTAACCTTTATTCCTTTT
ACCCTTCACAACATACAAAAGGCAACTTACACCTGGGATTTTTNCAAAACAACCTTTTAT
TTCCCTCAGANGNCTTTCCNTTAATCCCTATGGAACAAAGAANGCTNGNCCACTTGAANT
AGGGGCCCNAGTATAGGGGGCTTTGCTTTTCTACTTCCNTC

Sequence 2642

GGACTCCACCGCGGTGGCGGCCGAGGTACGCGGGTATCTGTCATAAGCTCAACATCTGTAG
ATCAGAGGGCTACCAGAGGAACCAAGTTTTGAAGATGAACAACACCTNTTAGAAAAGAAA
TTGCCTGTNACGTTTTGNAAGATAAAGAAGCGGGGANAACCTTGAACGTTGCAAACCTGN
AAACTGGGAGAAACGANGGCAAGCTCTNTTGAACAAGCAAGCTGCAAGGGAGCAAGGNN
CGCCTGNCCANCATGGAGCCGGCCNNGNCNANGGAAAAGGAAGGAGCGTGAGCGCCAGG
AGCAAGAAGCGCAACAAGACAACCTTGAAGTNGGGGAAGCAACTGGGAAANGCATGCTGT
NAGCTANNAACCTGCANTATNAGAGGGAGGAGAGGGAGGAAAAGAAATTNGANAGGCGAA
GAGGCTNGCAAACTGGGAAACTTGAAAGGCAACGACAACCTTNGAGTGGGAACCGGAANT
CGAAGGCAAGAACNTNCCTAAATCAAAGAAACATAGGAACAAGGAGGGACATAGTTTGN
C

Sequence 2643

CAATTGGACTCCCCGCGGTGGCGGCCGAGGTACCTTATGTAGCCCAAGAAATTCAAGAGG

TABLE 1
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AAATTGATGGGGCTCCTTCAGGAGCAGCGTGCAGATATGGACCAGTTCCTGCTCAATC
TCAGAGACCCCTGTGGACAGTCCGGGTGAGCTCTGAGGAGAGTGAGGAGATCCCACCGTT
CCACCCNTTCCACCCCTTCCNAGCCCTACCTGAGAACGAAGACACTCAACCCGGAGTTTG
TACCTGCCCGGGCTGGCNCGCTTCTAGAACTAGTTGGATCCCCCGGGCTGCAGGGAATT
CGATATCAAGGCTTATCCGATACCGTCCGACCTCGAG

Sequence 2644

AATTGGAGCTCCCCGCGGTGGCGGCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTGGGA
AACAGGGTCTTGCTATGTTGCCCAGACTGATCTCAAACCTCTGGCCTCAAGCAATCCTCC
TGGCTTAGCCTCTCAAAGTGCTAGGATTACAGGTATAAGCCACTGCACTAAGTCCAGTGA
ATCATTTTCCAGACAACATTTACTGAATATCCGACACTGCCTTCCACAGACGGGGGAGGT
TTCCCAAAGAGGCCGTGCTTTTTGAGAAGCTGGCAAGATAACCCCTGGGGTGGAGGGAAGG
TGGCCCGCAGCTGAGACCACCACTTACTGTCCCCAAATCCTCACCAGAGGTTGCTGACA
CTTTCCTNTTCCCCATCCTCATCTACTTTTCAAATTAGAACAGTAGAAAAATGGGATGATT
AGGCTCCTTNNCATTTTTTAAAAAACCCCGTTGTTTCAAATTTTTNTAGACNCCAAGTCTN
AAANGGGNGTAATCNCCTTNGTAAAAATTTAAATT

Sequence 2645

CCGGCAGGTACCAATCATATAATNTATATAACATTGCTATCAGACTAAAAACACATTCTT
AGCTAAAGATAAATTACCATTTAGAAGTCAAATGCAGGGAATCTTACTCCTGTTTCCAT
TTTNTGNCCCNCTTGCTTCACTCGNGTATGNCATGCTCTATCTTCTCCTATGCAGACT
TTANGNCNGTNGGCCATTAANTCTTGAAGAAATTTCTTCNNTCTTGCTGTACNTACCA
NNTTANTTGGTCTGCGTGCAACAAGAAGGNGTATTATANNAAAAAGTTCTTGCTTAACC
ATTANGATTAAATAAANAAAAAAATTCCTTTGTTTNAACATTTTGNTATTTTTTGCACA
TACACCAAATTTTTTAATTGCCTTTTNCANAGNNCCTTTCCCTCCAAAAAATAAAAAAC
AAAAATCTTCAATCNACATAAAATCAAACACCTGTATTGATCCATGTTTCATGCTAAGCT
GGGNAA

Sequence 2646

ACTCCCCGCGGTGGCGGCGAGGTACAAGCGCTTTGAATATCATGGGCACCATGACTGTGA
CCCTACAGGTAGGATTGGATCACTCCATGAGAGTAGCCGGCAGGTTTCTACAATGGCCTG
GGAATGGACTGATTATTTTTATACATTTTCTGGCCTGAGAGAAAGCCAAGGTCCCCTGCT
GTTACAGCAACCCCTGCCTGGGAGCTTGAATCTTGGTAAATCTGCCCCGTTNGGATCTA
TTGGAGGTAGGCTCACCCJTTTTNGTCTTTTGTGGGAAAATTAAGAGAAATAATTNTCA
GACNTATCATCACCTCCAGTGGAACACAGAAACCTGGACCCANCTGCACTATTTTAAAT
GTAAAAATAACAATATGGCCAGGGTGCACTGGCTCACGCCTGTAATNCNATCACTTTGAG
CAGCCAAGGCGGGCGGATCACGAGGTGAGGAGATTAGACCATCCTGGCCAATATGGGTG
AAACCCTGTNTTTACTAAAATACAAAAAAATTAAGTGGGCATNGTNTTGCCTGCCTGTNG
TCCCANCTACTTGGGANGGCTGNGACCAGGGGAATTGCTTTGAACCCCGNANGGCNTAGA
ATTGCANTGAGCCNNAATCANGCNTCTGACTTCTACCTNGGCGACAGGANTGGGACNTT
TNTTAAAAAA

Sequence 2647

AGGTACCCTATATTCTTCTTGATTTCTAGCCTTTTATTGGCTCTCAGATTGCCAGAGTTG
GGACTCAATAGTAAGCANCCATTCTGGTGAGGCGGAAGNGATNCTACCAGGGTGNGTTNT
CATGACAAGCANAATCACTGNGTTTTCTCTCTACTCTGTGGCATANGACTCTATGCCAT
AGAGNGACGTGTGAAAGGCTTGAGGCT

Sequence 2648

TCACCGCGGTGGCGGCCCGCCGGGCAGGTACTTATTTTTCTTTTTTTTTTTTGGGGGTGGG
GNCCTGGGNANTTTTTNTNAAGGGGCTTTTTAACNNGGGANGANANCCTGTGCCGGTTTCCAN
CCANGCCGGTNGTNAATTTTCAACCTTTTTTCACTNGCTTTGGGTTTTTAAGGCTTTN
GTTTTCNANCNTTTTTCTTTNAAANCCTTCTTCAAGTNGANGCCATTCTNCCONGGTTT
CTTCNAAATNTGGGCCTGGGTCCCTTNTCCCCGGNTTTAAAAAANAACCTTNCCAAAAACA
AAACANTTTTTTCCCTNG

Sequence 2649

TABLE 1

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CCGCGGTGGCGGCCGCCGGGCGGGTACGCGGGGGTCTCCAGAGTGAGTGTTCCGGAGAG
CACCGTGTTAGGGAAGGAGGAGGCTGCGGGCTAACCTGCCGGGAGGGAGGATGCTACTGC
CTGTTTCCTATTAGTGACAACCCACCTCCTAATCACGTCCTGCTTCAAACAAGGTAACAT
CACAGGACAGCCTCCGAAACAATAACTGTTTGAATATCCTTAATCTTCGGCAACTTCAAT
AACTCCCCAAAATATATGTAATCAGAGAATTAACTTTACAACTTTTGGTTATTGTTTGC
TTGAACCATAAAGCAGAGCTCTTTCTGGGATAAAAAAAAAAAAAAAAAAAAAAAAAAAGT
ACCT

Sequence 2650

AGGTACTTCACAATACAACCTCTTGCAAAAAGTATGAAGACACTCTGTGATGGTGGTGGCA
TCCACGAAGTAGCCGGCGCATAGGCAGCAACAATGTGTTCAATCAAGTCTTTGATCTTC
ACTCGAACCTCCTCCTGACCCTCCTTTCCAGGGGAGACTACACAACGTCGGCGACACAA
CGCGCAGGCCCGCGTACCTGCCCG

Sequence 2651

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATAACAAGCAATAATAAA
AGTCCTCTGCCGAAGACAGAATAGTGTA AACCTTTCTTCCCCTGCCCTTACAGATTTT
TAGAGAAGATAATTTGGGAATAAAAGGTATAAAAGGTTTTTGAGAAAAGAGAGATCAAAG
GACATTCAGAGTTCGGGAGGATATCTGGGAAGCAGACTTAGCTTAGATCCTAAAGGGTGT
AGAAGATCTGCATTGCTGGGGAGGAGTGTGGGAGTGGTAAACCAGTCAAAGAATTCACAG
ATGTGCTGGGAGGAGGAGAAGGGGAGCAGAAGCAGGAAAACAGTCTGGCTGAAACACTGG
TTGTATTTCAAAGAGCAGTAGCAAATCAGGGTGGATAAATGTGTGGGCCTAAGCAGCTGG
TGAGCATTAATGTGTAAGAATCAAATGTATCCTTAGCAAACCTCTGAAGATTTCTGAG
TAAGATTTTATGAGTGTTGGTAAATTTATATAGGATGCATATGGGTAGTACCTGCCCGG
GCGGCCCGCTCTAGATCTAGTGGATCCCC

Sequence 2652

CCGCGGTGGCGGCCGAGGTACATAGTGTCGCGAACTCAAATCGGCATTTAGATAGATCCA
GTGGTTTAAACGGCACGTTTTTGCTTATAAAAAAGTGCAAAAAGATGTGGTTTACAAG
TTAAAGCTACAGAATCCCTTTTGCTGTAATTGCACCAAGTTTTAAAGCCTCTGGACAGAG
CAGTATTTCTGTTTAAACTTTGTTTTCTTAAAGCTTACAGTGTGGCTAATTTCTCCT
CCCCTTTTACAAGACGGGGGCCGAGGGTGGACACTGGTGGCAGGTTAAGGGATACTGT
CACTTTAAGAAGCCTGCAGATTGAAGTGTAACATGGAGAAATTAGGGGCTGATTTTTTA
AACTGTGTGAGATATTAACCAGCCGCCCTGTTATAAAATCAGGAAATNCAAACAGCGATT
TACACCGATTAAACCCCCCTTTATATATTTTTTACAAAATCACTGAGAAAATAATNAAC
GTTTTATCTCTCTTGGCTTTTTTTGGTTTTTAAAAAGTGTCAAAAAGTCTACATTTAAAT
NTTAAAAATTTAA

Sequence 2653

CACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTACACCAA
ATGGATTACAAGCAGCATCCAGCAGAAGACAGACCCCCCAACCCTGCCACCAGGGCTCA
CACTCTACAAAACCCTGAGGGCCTAGAAATCTGTAAATGCATCGCCAAGCACTGGGGCTG
ATTTGCAGTAATTTCTAAGCAAGGCAAACATGATCTAGCTTTGAAGGCAGCATGAAGGC
AGCGGGTTGGTGAGAATAATCTCTCCTTAAGAGAAGAAGAAACCTGGGGCGGAAGGAGTT
TTCCCCGAAGTGGCTTCCCGCGTACAGAACACAGAATTTATTTCTGTCAAGTTATTTAATA
CATTGAAAATTTAGTGAAATGTTCAAAGAGAATAGATGTTTCCCAAAACAACAACCTTTAT
GTTAAAAATAGTCATTAAGATCTGTTGTAATTAATA

Sequence 2654

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGGTAAAGGTATAGT
AGTTGGCAGCAGAATGGACCCATTGAGGATAACTATAAAATTACNGAAAATATTTAAATG
CAACTTATTGCTATAGAAGCAAAGAGGACTAAAGGGCAAATTTCTAGAGAGTGGTAAATC
TCAGAAAGCACAAGCATAAAATGCAGCTCTGGGGGCCCTTTCCACTTCTGGCTATAGGGA
AGAACCTGAATACTGAACTTGATTCAGGCAGAGGACCATAACCTGGGGGTGAGGGGAAGG
CATGGGGGGGACCAGAAACCAGAAGAACGATCAAGACTGCAATGAAAAAATGGATACAT
TAGGAGCTTCAAACACATATAATTTCTCAAGAAATTTCCAGATTCTCATGCTGCATAGGG

TABLE 1

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CAGGAGCCTGAAAAGCTAATTTGAGAAGATAATAAGTTGGATTTTTGNTTGTGTTTGCAT
TTTGCAAGTACCTGCCCCGTGCCGGC

Sequence 2655

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGGAGGTACCACTGAATCCAAGG
CTCTCTTGGGTAGCCTATGTGCCTCTTGGATGGTATGTGGAAGCCAAGGACTGTCTGAAC
GTGCTGAACAAGAGCAACGAGGGGAAAGAATTACTCGTCCCACTGACGAGTTCTATGTAT
GTCCCTGGGAAGCTGCATGATGTGGAACACGTGCTCATCGATGTGGGAACGGGTACCT

Sequence 2656

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCCCCGGGCAGGTACTTGAACAGTAGGAGG
AGGTGGTTCTCATTCTCTCCCGGAGCGTCTCTCTCAGTCAGGCTGGCACCATGAC
CCAAGGAACCTCGGCGAGTGACGGATAAACACCAGTCGGCCCCGCGACTAAGAGCTGCGCC
CCCGCGTACGCGGGTCACCAGGGTCAGTTTCTTTAATGATGGTTTCCAACCTGGCCTAATA
CATTAAAGTAAGACTGGCTGATAACATGACCAGACAGACATAAAGACCCTGTTGGGAATGA
CATTGAACCTCTAAAGTCAAGATTTCTTACACAAATCTATCAGCTGGAGAAAATGAAGGC
AGTGTGGTATATGTGTGCAAATAAGGACATTATGAAGCTTAAATATGGAATGTCTCTTGG
ACCCCCGATGTCATCTGNATTCTCTTTTCTTCTGTACCCT

Sequence 2657

CGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTACCATCTTGGCTCACTGCAA
CCTCAACCTCCTGGGTTCAAGCGATCCTGCTGCCCCAGCACCAACCCCTCTCCAAGTAGC
TGGGACTACAGAAGTGCATCACCATGCCAGCTAGCTAACTTGAATTTTATAGTAGAGACA
GGGTTTACCAGGTTGCCAGGCTGGTCTTCTGAGCTCAAGCAATCCACCTNCCTTGGCC
TTCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGCACCCGGCCCATTTTATATATTATT
TTTGCATAGCCTTCATTGTCTTAGCAAAGTCAGAAGAAGACCANTAACATAATGTNATT
AATTAACAACAACGNCAACAACAACAACAACCCNGGATGGGGGCAGTGGCTCAAG
CTANTAATGGCCGNCCTTATGAAAGNCCAAGGGGNGNGGATTGGTTGATTCCATTTTAA
ACCAAACCTGAANCCCTNTTTTTTANAAAAAATAAACCGTTAAAAAAATCCTTGGTTTTG
TTTAAANGNGCCGGTCCCCCCCCCAAGGAGAAAATTTTTNGGGGGGGGGNGTTAAAAAA
AA

Sequence 2658

GGGCGAATCGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTNTTTTTTTTTTTTTTTTT
TTTTTCTCCANAGGCTAGTTTTTCTTCACTCCTTAANAACCTCTGCTCCTTATATGGGCT
TCGGTGGCAGTCATGGGGCAGCACCGCAGGTCTACAGTGGGGTGGAGGTGTTCCGGTCCTT
GCGGGGCTTCATGACCTTGATTTNTGGCGGTGGGGGGGCANACCCNCAGGTCTACAGTG
GGGGGAAGGNGTTCGATCCTTGTGGGCTTAATGACCTTTGATTCTGACTACGGGCTGT
GAATNGGCACAACCTCACACAAGTATTGTNTTTCNCATCNACCCTGGGAAAGAACCCTG
CCCCGGGGGGGGCGGGGTTT

Sequence 2659

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTNTTTTTTTT
TT
TTTTTTTTTTTTTTTTTTTTNAAAAATTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
CCCNAAANNCCCCNAAAAAANAAAAAANNNNTTAAAAAATTTTNCGGGNNNTTCCC
CCCNAAANNNTTNTNTNGGCNAAAAAANNNNNNTTTTTTTTNGGGGCCNNCCNTAAA
AAAAAANTTTAAATTTTTTGGGGGGGNCNGGNNANCCCCAATTTTNNNTTNGGGGG
GTTNAAAAAANAAANGGGGNAANAAAAAANGGNCNNNAATTNGNNTTNTNAAAAAT
TNCNCCNNNAAAAATTTTTCTNAAANCCCCAAAANGGGANGGNCNNTNGGTTTTTTTAN
GGTAANGGGGGGCCAGGGGGGNTTTTCCCAANTTTTNCCTGGCCAAAAAAGGAAAAAT
TTTTTTTTTGTGGGGGGAGGGAGTTTTNAAAAA

Sequence 2660

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGGAACAGGGATAAG
TTCTTGATAAGGTGCCAACATACCTATAAAAGCTGATTTTTGAGTAAATTATTGATTCT
AACATATGTAATGGATTTGGTGTGATAATTTCTGATCTTAACTATAAGTGACTTTTTA

TABLE 1
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TTCTCCACCAGAAAAGATAAATGACTGAGAATGTAAGTCTGCGCTCTGATTAACACAATG
GAGAAACGGAAAAACTATCTCTGTTAAAAACTGATTCTGTCACTTCTCTGATATCAAAT
AAGAGGAAGGAAAAATAAACTTTTTGTGTGTAGATAGAAAAACATACCTGAGGCCAGGTGC
AGTGGATCACGCCTGTAATCCCAGCACTTTGGGAGGCCAAGGCGGGCAGATCAGCTGAGG
TCAGGAGTTCGAGACCAGCCTGGCCAACATGGTGAAATCACGTCTCTACTAAAAATACAA
AAATTATCTGGGTGTAGTGGTGCCTGTAATCCCAGNTACTCGGGAGGCTGAGGCAG
GAGAATCACTTTAATTC

Sequence 2661

TCGGAGCTCNCCGCGGTGGCGGCCGGGCAGGTAAGTCTGGCTGCAGACTGACCTTGCTCAG
GTCCGAGAAGGATGGGGCAGCCACTGGAGTGGATGCCATCTGCACCCACCGTCTTGACCC
CAAAAGCCCTGGAGTGGACAGGGAGCAGCTATACTGGGAGCTGAGCCAGCTGACCAATGG
CATCAAAGAGCTGGGCCCCACACCCTGGACAGGAACAGTCTCTATGTCAATGGTTTCAC
CCATCAGACCTCTGCGCCCAACACCAGCACTCCTGGGACCTCACAGTGGACCTTGGGACC
TCAGGGACTCCATCCTTCTTCCCAAGCCCTACATTTGNTTGGCCCTTTTCTGGTGCCAT
ACACCCCTTA

Sequence 2662

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAGGGAGGGACATACAAT
ATTTAATAGGATATTTCTACAGAACAATAAATTATATTATGTCCTTGTAATAATCTGTAC
CTCTTTAAACATTTAACTGAAACATCCATTTTTTTTAGCTTTGCTAATCAAAATTGTT
TTAAGAATTAATACTAGGTTGTAATAATGTCAGTACCTGCCCCGGCGGGCCGCCCCGGGCA
GGTACATAGGCATCCTATTCACTGCACCCTGTACACCCGGGCACCCCCCGCCCCGCACAT
TATTTGAAAGACTGGGAATTTAATGGTTAGGGACAGTAAATCTACTTCTTTTTCCA

Sequence 2663

AGTTCGGTGTAGGTGCTTCGCTCCAAGCTGGGCTTGTTGGTGCACNGAACCCCCCGTTTT
CAGCCCGACCCGGNTGCGCCTTATTCCGGTAAGTATTCGTTCTTTGAGTCCCAACCC

Sequence 2664

AGGTAAGTCAACTGCCAGAACTTGGTATTGTAGCTGCTGCCCGCTGACTAGCAGCTGGAC
TGATTTTGAATAAAAAATGAAAGCATTAAAGGGTTCCCTACAAAACATTTTCTTTAAAA
TACTTTTGAATAATGGCTATAANCAGTTGACTTTCACCCTTGGAGAGCATCACACTGTGTG
AGGTTCAAGTATTGTTGACCCTNCCCAGCCCTNCTGCTTCTTTAAGTTATCTGTGTGCG
TGCNCTTCTCTCAATCTTNTTTTGCACCGCTCATTTNTTTTCTCTGACCCATGAAGAA
AAGGAAAAACTTTACTGATTGATAAANTTTTTAAAAANAA

Sequence 2665

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTAATTTTTTTTTTTTT
TTTTTTGGTAGAAGTGGTGTCTCACTATATTGCCTTGGCTGGTATTGAATCTTGGGCTC
AAGCAATCCTCCCCTCTTGGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACCTCAC
CCAGCCCACTTATTCATCTTTTTGCCTGCAAGCTACACCACCAAAGCCCCAGGTCAAACA
TCTTTCTCCACAGACTGTGAGAAAAGAGCCTTTCTTCTCCTAATTTGTAATGGCTTTCA
GCTCTATNTGCTAGCTTCAATCCTGACATCTGCAGCTTACA

Sequence 2666

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAATGAGGCTTGGCTCTGTGTGAT
GCACTCTAACCAGCCCACACTTCAGCAGCGGCATCATTTGGATTGAGGAGAGTTTCTGC
AGCATGAAGGAGTAGGAAGAACACAGGGTGAGTTCACAGGAATCCCTACTTTTCCATGTG
ACCTTGTTTGGCCTGAAGTGATTTTCTTGACCTCTCTGGGCCTGACTTTCCTCATCTGTA
AAGTGGAGGGTTTGAAAATATCACAGAAAACAAAATACCTTAAAGGATGCTCTGGCACAC
AGCAGGTATTTCCATATAATGATACCTCCCATTCTTTTTATGTGAGCTATATCCCCTGA
AACCCAGGTTTGACTAAATTGAGACCAACTTTCATAATATACAAATGACTGNTAGATAT
GAATTTTGGTGTGGTGAAGATGGGGAGTGAAAAAAGTAGAAAAAGTCAAATCTCATTGAA
TAAAAAAGGG

Sequence 2667

NNGGCGGCCGCCCCGGGCAGGTAAGTCTTTCTTNTTTTTTTTTTTTTTTTGGAGGCAGAGTCT

TABLE 1
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NGCTCTGTTGCCAGGCTGGAGTGCAGCGGTGCGATCTTGGCTCACTGCAAGCTCCGCCT
CCCGGGTTCACGCCATTCTCCTGCCTNAGCCTCCCAAGGAGCTGGGACTACAGGCTCCCG
CCACCACGCCTGGCTAATTTTTTTGTATTTTAGTAAAGACGGGTTTCATCGTGTAGCC
AGGATGGTCTCGATCTCCTGACCTNATGATCCGCCGCTCTGTCTTCCCAAAGNGCTGGN
ATNACAGGGCCTGANCCATTGTGCCAGCCAAANTGNCCTTTGNAAAGTTNGCGAAATC
AGATTTTGTTCCTCAATAGAACCAAAATTTTATGAGGGATGCTAGCATTTTCCAAGGC
ATANTAATTAGTTTACAACCTGAANAAATATTATGTTTTGTANTAGATAAATATTAAGGT
GNGCATTTTAA

Sequence 2668

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCTTATTACAT
ATGATTTTTATTAGTTTCTGGAGGCAAATTTAATTTTATTTTAAAATCAAATCTATTT
TAAAAGAAATAGTTCTCAAAAAGACAACGATGACTGGGTGTGGTGGTGTGTGCCTGTAGT
TCAAGGCTGCTCGGGAGACAGAGGCAGGAGAACCCTTGAGGCCAGTTCAGTCTAGCCTG
GGTAACATAGCAGGACCCTGTCCCTAAAATAATAAAAAATTTAAAAACCACAATAATGTG
AGTTACAAAAAAGTGTAACCTATGAAAAGTCCGTATTTATATTGAC

Sequence 2669

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGGCAGGGGT
GGGAGCATTTATGGTGATCAGATGTGCCTGGCAAGCCCCTGTTTACAGACATTGCTCACATT
CCAAATGTTTTCTGTAGAAATATTGCACAGGTCTGGGGACGCTCTACCTGTGCCCTGTGA
GTGTTAATAATGGTGGAGAAAGAGTGTAGCTGTGCCCTTGAGAGAGAAGGTGAGGGAAAG
AGTGCAACCAATGAGCTGACCGTCAGCTGAGCTAGGCTCTTCACTGAGTCCTATGTCGCAGT
GCACAAATCACTGCCCATCANGCCTCAGTTTCTCATCTGGTAAATGGTGATAACATCAA
TCTGCCCCCCCCGCCAGGGTGCTGTTATGAGGGTCAAAGTGGTAGTGGAGGGTAATACTG
GNTGAGTCCATTTGTGTGTGGGAGGAAGAAAGGCTTTACATTNACCTGGTACCTTGGGCC
GCTTTAAGAACTAGGTGGATNCCCCCGGGCTGCANGAAATTTNATATTAAGCTTATTG
ATTCCCGTCCACCTTNGAGGGGGGGG

Sequence 2670

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCTTATTACATAT
GATTTTTATTAGTTTCTGGAGGCAAATTTAATTTTATTTTAAAATCAAATCTATTTTA
AAAGAAATAGTTCTCAAAAAGACAACCGATGACTGGGTGTGGTGGTGTGTGCCTGTAGTT
CAGGCTGCTCGGGAGACAGAGGCAGGAGAACCCTTGAGGCCAGTTCAGTCTAGCCTGGG
TAACATAGCAGGACCCTGTCCCTAAAATAATAAAAAATTTAAAAACCACAATAATGTGAG
TTACAAAAAAGTGGTAACCTATGAAAAAGGTGCGAATTTAATATTGACCTTTGGTAAGAG
CTCAATTANTTTTCAAGGAAAGGCAAGGGAGTATCACCATTCTGAGTAATACAATTTCAAC
TAATCTTTATTTCTTCTACTTGAAGTCAGTGCCTATCTACCACAAACATTCCTATATCAG
TGTGCAAATTAATTTNGAGACAATAGGCTTTTTACGACAATGAATTGGTTACTTTNAA

Sequence 2671

ACGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTNNTTTTTTTTTTTTTTTT
TTTTTTTTCATTTTTATAAGAATATATAAAAAATGATATAAANGGACATTTACGGTAGTG
GGGGAAGGCATATATNTACGTTAAAAGGCAGGACATTTTTAA

Sequence 2672

TACGAGCCATTTACAAAAATCGACCGCTTCAAGTCAGAGGGTGGCNGAAAACCCGACAG
GGACTATTAAGAATACCAAGGNCGTTTCCCCCTGGGNAAGCTCCCCTCGTGCCGCTCT
TTCTNGTTTCCCGAACCCCTGTCCGCTTANNCGGGAATACCCTGGTCCCGCCCTTTTTT
TTCCCTTTT

Sequence 2673

CCGCGGTGGCGGCCGAGGTACGCGGGATGTGGTCTAATCAAAGCCATCTCAATTTGTAGA
TGAAGAAGGCAAGGACTAATGACAAGAAATGAATTGTTGGCCGGGCATGGTGGCTCACGC
CTGTAATACCAACACTTTGGGAGGCCAAGGCTGGTGGATCACCTGGGCTTGGGAGTTCGA
GACCAGCCTAACCAACATGGAGAAACCCCGCCTCTACAAAAAATAAATAAAAAATTAAG
CTGGGCATGATGGCGGGCGCGCCCCCTAATTCAGCTACTCCTGAGGCTGAGGCAGGAGA

ATTGCTTTGAACCCAGGAGGTTTGCGTTAGTAAGATCGCACCATTGCACTCCGC
ACTCCGGCCTGGACAACAAGAGCAAAACTTTTGTCTTAAAAAAAAAAAAAAAAAGTACC
TGC
Sequence 2674
CCGCGGTGGCGGCCGACGNACCNGGTNCTCTGTGGGATACNCATTAGAGTTGCTCGNTGG
ANATGGAATGATGGTGGGGTGCATTTNANCATGGCTGANTGCTTCTGCTTAAGGACCTG
ATGTATTAATGCTCTCCANGTCATTCATATTGGGGGAAGGAACAAAGAAGGGTACCTN
Sequence 2675
TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGTAGCATGATCTTGGCTTA
CTGCAACCTCCGCCTCCCTGGTTCAAGCAATTCTCCTGCCTCAGCCTNCCGAATAGCTGG
GATTACAGGCATGCACCACCATACCCGGCTAATTTTTGTATTTTAGGAAGAGATGGGGT
TTCACCATGTTGGCCAGGCTGGTCTCGAACTCCTGACCTCAGGTGATTCACCCGCTTGG
CTCCCAAAGTGCTGGGATTACAGGTGTGAGCCACTGTGCCCGGCCTCCATTACACCTCT
TTATTCTAGTTCAACTCAGACCGTGAAGTTAGCATACAGGTCTCAGGAGTTTGAGGCCA
CTTTCCAAGGATAAGGGCCACCTTCAAGGGCACATCTTGCCCTTAAACAATTAATTTNT
GAAAGCTTTTGGGAAAGGGGNGAACATGCCTTTT
Sequence 2676
ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTACTTTTTTTTT
TTTTTTTTTTTTTGAGATATAAATTGGTATGTTACATGTTGGTAAGAAAGATCTAATAG
CTAGAAAAGGAACTGCTGAAGTTGCAGGAAAGAGAAGAGAAATNTAAGGAATGAAACCTG
AAAAATAGAGGGCAGAGTCAGAGGGGTGGAGAAGGAAGGGGGCCCTGACGGGAGGNGGACC
ACTTTTTNCAAGGCACATGCAGGCAGGCACCTNTNTGGAGGGTCCCATGGCTGGCTATGT
GTGGCAGTGCATGAAATAGTCACTGAATATGCTCCCTTGCTGTCTCTGCTTGTGCTCAC
CGAGGAGTGA CTGTGCTACTGGAACAAGTTTGCCTTTTCACTGGTCTAAATAAANGGA
TCAATGACCTCAAATCTAAAGAGCATTAGGAAACCTTNTNAAGCCANAACGTGTACCCTTG
GCCGNTNTAAAACTAAGGGGGATCCCCCGGCTGCAG
Sequence 2677
GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGGCTGCGTGCGGGCGGG
AATCATGGTCTCTCGCAGAGCTCTGCACTTCGATTCAAAGTGGGAAACCGCTTCCAGAC
GGCGCGTTTCTATCGGGACGTCCTGGGATGAAGGTGGAGTCTTGCTCTGTCGCCAGGCT
GGAGTGCAGTGGCGCGATCTCGGCTCACTGCTGCTGACTACACCCGGATAACAGAAGACAG
TTTCTCAAAGCCTTATGATGGGAAATGGAGTAAACAATGGTGGGATTTGGGCTTGAGGA
TGATCATTTTGTGCGAGA ACTGACTTACAATTATGGCGTCGGAGACTACAAGCTTGCCAA
TGACTTTATGGGAATCACGCTCGCTTCTAGCCAGGCTGTCANGCAAACGCCAGGAAGCTG
GAAGTGGCCACTGACCGGAAAGTTGCANGAAAGGTGTTTTTTTAAACCCAGG
Sequence 2678
NCCCGGGCAGGNACTTTTTTTTTTTTTTTTTTTTTTTTTTTTAAATGGGGATTGTCTAT
TAAAATAGGTTGTNGGAAGNACCCCANAGGACCCTTNTTGGATCAGGAATCAATAATCCC
ACCNAGACGGGGNCCCAGCATTTATTGGGNCGCAGCATAAAACTTGCCACCTCCTTATT
GGGGNTGCCCTGGGCTGAGTCAAACACATTTGGATGCANChnnnnnnnnnnnnnnnnnn
nnnnnnnnnnnnnnCTGCAGGAATTTCCATTATTNAAAGCCTTATCGGATNCCCGTTGCAG
CTTCNAGGGGGGGGGGGGCC
Sequence 2679
TAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACTAACANGGGTGTCTGGTCTT
AGAAGCCTCCCTTCAGATCCCAGCTGACCCTGGTGA CTGCCTGGCCTTGATGTTGGCTGC
AGCCTTCTGATAGAACCACATGGATTCCACCCACAGCTGGCCAGGCTTGTTACATGGGTC
AAGGGAATACAAATGGCCCCCCCCCAGGGAGCAGGTGTTGGCCTCAGTTTTCAGGGACCC
TTGGTGTGCTCCTTACCTTAGAGCCCATTAATCTACCCCATNAACTCTCTTGCCATGAAA
AGCCATCTTCCAGGAGCCCTGTTTT
Sequence 2680
AGGTA CTCAAAGACGAATCATGAAAAAGAAAAAACTTTATTTCAAACAGGTTCA GTGAT

ATATGTGGGTGCTNCAGCAAAGGCTGGTTGTGGCAAAGTTTCATTTCAAAGCTGTATGATG
TGGGCTGGGCAAGGTGGCTTCACGCCTGTAATCCCAGCACTTTGTGCCCCGCTACTCAGC
TGTGTTTCATGTGGNGGTCTGTGGAAAGAAAAGAAGACTCGTTTGAAATGAAGCTGTCCC
TTCCAAGCAAGTCTTCTGGTGGCTTTTCTTCTCTCAAAAATGGGATCCCGATAAAATAT
TTGAATAGGAGCNGAATTGGTAGAAATGTTCTGCCTGTACCCCCAGAAAAGCCTTGCCCT
GGTTTT

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTGGTTTAAT
TTCACAGTGAGGGAGTCGGTTGGTGATCTCTAAGAAATCCCCAAGCACCTGGTGTGGGA
AAGTCCCTCAAATAAAGAAGTGTTCTTTTCTTTTTTTTCTCTCTCTCTTTCTATTTAT
TTATTTTTTGAGATGGAGTCTTGCTCTGTACCCAGACTGGAGTGCAGTGGCAGGATCTC
AGCTCACTGCAACCTCCACCTCCCGGGTTCAAGCGATTCTCCTGCCTCAGCCTCCCGAAT
AGCTGGGATTACAGACACCCACCACCACGCCAGCTAATTTTTGTATTTTGTAGAGAC
GGGGTTTCACTATGTTTTGTCAGGCTGGTCTCGAACTCCCAACCTCAGGTGATCCACCAC
TTAACCT

CCTCAGATTTTGGGCCTAGGAAGGTAGGTGATTTAAACTCACTGAAAGCATGTACACCTT
GCTGTTGCTGCTTGCTGCCACTGCTGCTGTTTCATCTGTTCTCTGCTGCCGCTGGAATCGT
GGAGGTAAGACTTCTGAAACTGTTTGAATAGCCAGATAATACAGC

GCGAATTGGAGCTCCCGCGGTGGCGGCCGAGGTACTTTCTTTTTTCTTTTTCTTTT
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AATCTCGGCTCACTGCAACCTCTGCCTCCTGGGCTCAAGCAATTCTCCACCTCAGCCTC
CCAAATAGCTGGGATCACTGGCACAAACCACCATGCCAGCTAATTTGTATTTTTGTA
GAGACAGGGTTTACCATGTTGCCAGGCTGGTCTCAACCTCCTGGGCTCAAGCAATCCT
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CCCTTATTTATACCAATTACCTGCCAGTAACTGNGGACTTTTGCTTCCTCACCTGTTT
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ATTCGAATACCCGCCGCCTTCGANGGGGGGGG

GACTACTATAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGCCCGGGCAGGTACTTTTC
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GCTGGAGTGCAATGACATGATCTCAGCTCACCACAACGTCCACCTCCAGGTTCAAGTGA
TTCTCCTGCCTCAGCCTTCCCAAGTAGCTGGGATTATAGGCATGTGCCACCAAGCCTGGC
TAATTTTCTATTTTAAGTAGAGATGGGGTTTTCTCCATGTGGGTGAGGCTGGTCTTNGA
ACTCCTGACCTCAGGTGATCCACCCACCTCGGGNCTCCAAAAGTGCTGGGATTACAAGG
CCGTGGAGCCCACCGNACCCAGCCAAAAGGCCAAAATNCTNAAGTCTTTTGNTTTTTTTTT
TCAAATTGAGGGGTNGTTATTTAACAACAAGCTTGATCATTTGAGNCCAATTNTTTTGG
TTCCCCGTTTCCCCACCCGCCAATTCNTTTTTTTTTTC

AGGTACAACATTTAGAGAACCTTAGCTGCCAGAAAAAAGCTCAGATTTTCTGCTTTACAAA
AGAATAAAAAATCATCGAATTTATTACCCTGGACTTTATTGGAAATCAGTGAAGAATATTC
ATACCAAATACCAGGTTTCACGAACNTTNCCTCTCTCTCTTTCNTTCAAGGTAAGGGGGT
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GGGGCCCTTTANAAAAAAGGGGGGNTNCCCCGGGGGGTGGGANGGAANTTTTGGAN
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CCGCGGTGGCGGCCGAGGTACTCCAACCCAAGCAACAGAGCAAGACCCTGTCTCAAAACA

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CAAAATCCAGTTNTGTCTGCTCCAGCCCACCTTGTCCTTCTTTATT

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GCNTTNGNACACTAAAGGGCCCCAAAAGTTGACGCANTCCTTTTNTGGGCCCAATTTT
TTTAANTCNTTCNAAGGTTTTTACGGGAGNTTGTTGTCCAGACCATTGGCTAGGACCTG
GCTTGATTTTCCATCNTTANATCCTTNTGTTCTGTTCAAGAACCANTCTGGGGATCT
TGTACCTNGGNCCGCTNTAGAACTAGTGnnnnnnnnnnnnnnnnnnnnnnnnnnnnTGGATATT
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GAGAAAGAAGGGGGACCCACCAGGGCTATGGAGAGACAGTAGAGGCAGGACTGAACCGT
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TTTGCTTCTCCACCCCTAGGGGAAAACTGCTTTGTGCTTTGGGAAGTTGTCTCTGA
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TGTGGAGGAGGGTTTTAAAGGAGAGAGGGTCGGAGAGCAAAAGGCCNAANAAGCCANA
AGCAAGTTGAGAGAGGGTGAAAAAGTGAACCACCGGCTTGGGCTTGAACCCGACACGCTT
TTCTTCCAATTGGTTAAAAATGCCACCTTTAGAAAAAATTTNACAAAGGNTCCCATTCC
NCNAAAAAAAAAAAAAAAAAGGAAAAA

TATACGACTACTATAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGCCCGGGCAGGACG
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GCCTTGTTGTCATGGGGTAACATCCCCTGTGGATCAAAGGAGAAAGCCAGGAGTCTACACC
AACGTCCTNGAGATCACGAACTGGGATCCAAAAAACCATTCAGGCCAAGTGACCCTTNACA
TGTGACATTTTACCTTCCGACCTACCACCCCACTTGACTGGTTTCAGAACGTTTTTNACC
TAAACCTTGGCTTTCCCTTNTNTNNTGGCCAGNTTTTNACCCTGATGCGTAAAAAACGCA
ACCGAGCTGAGGGGTCTGANTNTCCCTGGGNTTTACCCCAACTCCATNCTTNGATTAAAT
GGGGG

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGGCACGGTACTTTTTTTTT
TTTTTTTTTTGGTAGGAGATGAGGTCTCATTATATTGCCAGGCTGGTCTCAAATTCCT
GGCCTCAAGTAATCCTCTCGCCTAGGCCATAGTATTGGGATTACGGGCGTGAGCCACTG
CGCCGAGGCTTTACTAGTTTTCCATCTATCTTTAGGCCTNCTCANATTTCTTGTTGGGGCT
CCACTTCCACCACTCACACCTTTAA

TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTGCACTCAA
AAAATTATTTCTCAATTTGTTTGCTCATACTATTGATTTTTTTCTAGAATCTAAATAAT
TGTGAATTAECTATGATAGCAGTATGCACAAACAGTAAGTGAAATCAGACCTATTAATTC
TGAGAGGAAGGAGGTGTCAGGATTTTCACAGAAGAAGAGCACTNAGGCCAGGCGCAGTGG
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GTTTTANACCAGCCANCCAAACNTGGGGAAACCCGNTTTTTANTAAAAANTCCAAAATTT
CCCCGCCTGTANTCCAGTTACTNAGNGGGGNTTGGGNCAAAAAATTTTTTTACNCCCG
GNGGGNGNGGGTTTTNCAGAGNNTATAAATCGCGCGNTTNGCTTTNAAATTTTNGGGNAA
AAAAGAAACGAGTTCNCTTTTGAAAAAAAAAAAAAAAAAAAAANGG

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGCCCGGGCAGGTACATAAGCCTAA

TABLE 1
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ACAATTTACCTANGTAAATATTGATGTCATAACCAAACCTATATGGCCCCGTTTCATAA
AGGTTACTATATTCTATAGAGAGTGAAGAGGTGGCCTTTCTATCCCAGCTTACCCTATTC
TTGTTATTGTTCAAATTCTCCTGAAGCTTGCACTAGCTGCCATCAGGTAAATGCTAT
TGGCTAGCAGAAGACTGCAGTTCTGTTAATATTAGAACCAGCAGGGGGAACCTGGGAACT
TGACATTAAAAATCTAGAAACGGAATTTTA

Sequence 2694

CCGCGGTGGCGGCCCGCCGGGAGGTACTTTTTTTTTTTTTTTTTTTGGGCGGGGGTCT
TTATTTGAGTTTAGGCATGATTGCAATGAAGAGGATCATGCTAATGAAGATGAAGCAGAC
GATAATGAGCGTGGCCCAGAGCAGCCAGTTGACTGACT

Sequence 2695

GAGCTCCCCGCGGTGGCGGCCGAGGTACACCTGTGGTCCCAGTTACTCCAGAGGCTGAAG
TGAGAGAGTCTCGTGAGCCCAGAAAGTTGAGGCTGCAGTAAGCTGAGCCATGATTGCACC
ACTGCACTGTAGCCTGTCTACAAACAAATAAACGAAAAACAAAAAGACTTGTGAAAAGT
GCTGATTTTAAATTAGGAAAAGATTAAACATTGGATAGTCATGGAATTGTTTACTGAACA
TTAGAAATTGGTTGCAAGGGTCTATGCTTCTGTAAAATAAA

Sequence 2696

ACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATATATGAATCACTA
AGAGTTCAGAAATTAAGCTCACTTTAAGAAAACCTCAGCCAGGCACAGTGGCTCACGCCTG
TAATCCCAGCACTTTGGGAGGCCAAGGCGGGTGGATCACGACGTCAGGAGTCCAAGACCA
GCTTGACATGGTGAAACCCTGTCTCTACTAAAAATACAAAAATTAGCCGAGCGTGGTGAC
ACACGCCTGTAATCCCAGCTACTCAGGAGGCAAGGCAGGGGAATTGCTTGAACCAGGGAG
GCGGAGGTTTGCAGTGAGCCCAGATCGCGCCATTGCACTCCAGCCTGGACAAGAGAGCGA
GGACTCTGACTTCCAAAAAAGGAAGAAAAAAGTTCCCTTGCCCGGGCCCGGN
CGNTTCTAAAACTAGGNGGGNTNCCCCCGGGGCTTNNANGGAATTTNGATTATCAAAGC
TTTNTCGANNNCCGTCGACCCTCGAGGGGGGGGC

Sequence 2697

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACTTTTTTT
TTTTTTTTTTTTTTTTTGGTANGGGACCGGGTTTTACCATGTTGGCCAGGATGATCTCGA
TCTCCTGACCTCATGANCTGCCTGCCTCGGCCTTCCAAAGTGCTGGGATTACAGGCATGA
GCCACTGNGCCAGGCCTTTGTCCATTTTTATTGAACTGCCTATTNCTTCTTACTGATT
TGTAGAAAGTCTTTATTCTAGTCTGGCAGGTATTTTNTTCAACACTTCCAAGATTATTN
ATTGGCTTTGGNAGCTAATGCTTCATTTGANAAAATGCTACCTGTATTATTGATGCCCAT
GTGA

Sequence 2698

CACTACTTAGGGCGATTGGAGCTCNCCGCGGTGGCGGCCGCCCCGGGCAGGTACAATTTCT
TTTTCTTTTTTTTTTTTTTTTTCTTTTTCTTTGAGACTGGGTCTCGCTTGTGTC
CCAGGCTGGAGTGGAGTGGCGTGATCTTGGCTTACTGCAGCCTTTCCTCCCCGGCTCGA
GCAGTCCTGCCTCAGCCTCCGAGTAGCTGGGACCACAGGTTTCATGCCACCATGGCCAGC
CNACTTTTGCATGTTTTGTANAGATGGGGTNNACAGNGTTGCCAGGCTGGNCTTAAAC
TCCTGGGCTCAGGCGATCCACCTNTTTTANCCTCCCAAAGTGNTGGGATACAATTGNGAG
CCACCACGTCCAGCTGGAAGGGTCAANAATTTTTTACATTTTTNGNAGCACAATNTGGAT
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NCNNTTTTTTTTANAAAAAANCNTTTTTTNNCCNAAAAAAA

Sequence 2699

CTACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCCGGGCAGGTACTTTTTT
TTTTTTTTTTTTTTTTTGTTTTTTTTTTTTTTTTTTCCGACCAATATGGTTTATTTNTG
CCCCAGCCAAGCTTNTTGGACCCTGGCTGGGGGAAAGGCACCCCAGGCACCGGCAAGT
TCCAGTCATTGCAGATCCTCCAGGTNTAGNGTGACTGGAAGTANCCTGGGCACTGNTGC
TGGACCGTNGGATTCTCCTTCTTNTCCGCCGCGGGTGGTCACCAGGACACCGCANAT
CAGGCATGTGATGAGTCCCAGGAGTCTGCCAAGCCGATGAGGATGACAGCCCAAAGGG
AAGGT

TABLE 1

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Sequence 2700

ACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTA CTTCAGTGGATGCAAATGA
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CCTGGCCAACACAGTGAACCCCTGCCTCTACTAAAAATACAAAAATTAGCCAGGCGTGGT
GGCACGCTCCTGTAATCCCAGCTACTTGGGATGCTGAAGCAGGAGAATCTTTGAACCTG
GGAGGCAGAGGTTGCAGGGAGTTTGAGATTGTCGAGTATAGTGGATTGAGTGCCTGGAG
CCGAGATTGCCAAGTGCAGTGGATCGAGTCCACTGCACTCCAGTCTGGGCAATAGAGCTA
AACTCAGTCTNAAAAAAAAAAAAAAAAAGTACCTGCCCGGGCGGCCGCTCTAGAACTA
GGTGGATCCC

Sequence 2701

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTTGCTCACCAA
GCTCTTGAGGCCAAGCTTGATACGGCTGTTGTTTTTTCTACATCGTAGCCAGCAGCCGC
AAGCGCTTTCTTAAGCGCGGCCAGAGAAAACGCCGCTGCGCTCCTTAGAAGCTGCCACTG
CCTTGGTGATAAGCTCAGATACTGGGGGTCCGGATGCTTTGCGTTTCCAGCAGTTGCGC
CTGCCTTCTTCGCCTTTTTCTTCACAAGGTGTTTTTTCTGCGGGTGCAGGAATGGTAGGA
GCAAGTGGAGCAGTCTCCGACATGTTTTGTCTTCCAGAAAAGACAATAAGTAATCTCA
AACTGTCAGAACAGCATGTCCCCCGCGTACCTGCCCGGGCGGCCGCTCTAGAACTAGGTG
GATCCCCC

Sequence 2702

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGAGGAAGGGGAGG
GCTTGGTGTTCCCTACGCGAAGGTCTGACTCAATGCTTATCCCTCTTCTCCTCTCTCT
GCAGACTGAAGAATTGAACCGGGAGGTGCGTGGCCACACGAGCAGCTCCAGATGAGCAG
GTCCGAGGTTACTGACCTGCGGCGCACCCCTCAGGGTCTTGAGATTGAGCTGCGGTGACA
GCTGAGCATGAAAGCTGCCTTGGAAGACACACTGGCAGAAACGGAGGCGCGCTTTGGAGC
CCAGCTGGCGCATATCCAGGCGCTGATCAGCGGTATTGAAGCCCAGCTGGGCCGATGTGC
GAGCTGATAGTGAGCGGCAGAATCAGGAGTACCTGCCCGGCCGCTCTAGAACTAG

Sequence 2703

CCGCGGTGGCGGCCGAGGTACGCGGGTGTGAGGAGGTGGGGAGACCACCCACCCCATG
TCCACCATGACCCTCTTCCACGCTGACCTGTGCTCCCTCCCAANCATNTTCTCTGTT
CANANAGNTGGAGCTGAGGTGTCTCCATCTATGNCTCAACTTCATGGTGCACTGAGCTGT
AATTCTTCTTCCCTATTAAATTAGAACCTGAGTATAAATTTACTTTCTCAAATCTT
GCCATGAGAGGTTGATGAGTTAATTAAGGAGAAGATTCTTAAATTTGAGAGACAAAAT
AATGGAACACATCAAAAAAAAAATTAATAAAAAAGTA

Sequence 2704

TNAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTA TTTTTTTTTTTTTTTTTT
TTTTTTCTTTCTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTNGCATCAAAAAGCT
TTATTTCCATTGGNCCAAGGCTTGTTAGGGATAGTTAAAAAGCTNCCTNTTGGCTGNN
GGGAGAGGCTTAGGCANAANCCCTNTTACTTTGNANGGGGCCCTT

Sequence 2705

CCGCGGTGGCGGCCGAGGTA TTTTTTTTTTTTTTTTTTGTGTTGAGACAGAGTCTC
ACTCTGTCACTGAGGCTGGANTGCAGNNGCGCGATCTGGGCTCACTGCAACTTCCACCCC
TTCGNTNTAAGTGATTCTNCTGCCTCANCCTCCNAANTAGCTTGGATCACAGGCGCCCGC
CACCACACCCGGCTAATTTTTGTATTTTAGTAGAGACATGGNTTACCAAATTTTTAA
GAAAAATAAAGGTGCATGATCAACAATCAAACCTNTAGGACCGTCCCCTANCAGGAGAGC
AGCAGCAGNAGCAGCACACANACCTGCCC

Sequence 2706

CACTACTTAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTA CTGAGCTNACCACTT
CTAAGAAACTCCAANAAAGGAANCATGTGTNTTNTATTCTGACTTAACTTNATTTGTCAT
AAGGTTTGGATTAATTTCAAGGGGAGTTGAAATANTGNNAGATGGAGAAAGTGAATG
AGNTTCTACCACTCTNACTAATCTCACTATTTGNATTGAGCCCCAAAATAACTATGAAAG

[illegible]

TABLE 1

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'ATCCNCGAAAACCCAAAANCCTTCTTGACCAAACCATTTTTTGGGGTTTTTTTTTGNNGG
CCNAAAAATTTTTTTTTTTTTAAAAAAGNNNGTTGNGGANAAAAACCCGGGGGGG
GGGGGGGGTTTTCTTTTTTTTTNGTNGGGGGGGCCCNAAAAAANGGGTTNAAAACN
CCCTTTTTNCCCCCNNNNNNNNNNTTTTTTTTTNAAAAAATTTTTCC
CCNCAAAAAANNANNNNNNTTTTTNTNNNCNNTTTTTTTTTTNGGGGGGGGGGN
NNAAAAAATN

Sequence 2714

CCNGGCAGGTACNCGGGGGCGCGTGAGCAGCTGCAGCGGCAGAGGCAGCATCCAGCGGCG
GCGCCAGCAGTTCAGTCCGTTGCTTTACTTTTTGCTTCACCCGACANTTAGTCNTTTA
ATGCCCCGAAAGNAGGAAAAGGTCCTTCCCAGGAGGAAATAACNAGTAGGGGNCAAAA
NGAATNGGGATTCCCCAAAAAGGGTAAAACCTTAAAAANCAANNNGAANGCNCCCACC
AAAGGGAACGGGTTCTTGCCCCAAGGAATTTGTTCAAGNCGAAAAACCTTNCTTTTCN
ACCCAAAAAACCCTTGTTNANCCCCCAANAAACCCCAAAGGGAAAAANAACAT
TTTTGCTTTTAGGAAAAGGGAACCTNNTGTTNGGNNAACCCAAAAATTTATTTNTN
GNNGGGGTTTGGCCCTTAAAAAGGGGGGAAAAAGNAAAAAGGGGAGGGGNAAAAAA
AAGNNCCAAGGGGNAAAAAGGCCTTTNGNAAAAANGG

Sequence 2715

CAGTAAATGAACTAATCTACAAGCGTGGTTATGGCAAATCAATAAGAAGCGAATTGCTT
TGACAGATAACGCTTTGATTGCTCGATCTCTTGGTAAAATACCGGCAATCCCTCCNGCAT
TGGGAGGGAATTTTGATTTTCCAATGGAGGAATTCCTAANTAACCTGGTTTTGGGNAAA
AAAAACCGNCCTTTTTCAAAAAAGGNANGGNCAAAAAATTAACCTTTTTCCCTT
NGGTNGGGGGCCCCCCTTTTTCAAAAAATTTTGGGTTCTTTNCTTTCCCAACC
CGNAAAGGGGGTTNGGGGGAAAAATTGGGAAAAGGGAAAAAAGGGGAACCCCA
NACCCCCCAAAATTTTTTTTTTGGGTTTAAAAGGAAAAAAGGGGGGTTTGGGGNG
AAAGGAAANTGNCCCTTGGGGCCAAACCAAGGGGGGGAGGGGGGAACCCCAANGNGA
ATTCCAAAAACCAAGGGGGGCCCTTTTAAATTTTAANGGAAAAAAGGGAAAAATTN
NGGAAAAACCTTAAAAAGGGGGNGGNGGTTCTTTAACCCCCATTGGGAAAAANTTAA
TTTTTTTTT

Sequence 2716

ACTTTTTTTTTTTTTTTTTGTGAGAAAACTCCTTTATTACCATCTCCCTATTACATT
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CCTTTGGTAGGAAAGTTAGGTGGTAAAGGTTTTCAATCCTTTNATTTTTNTAATCAA
ANGGGGAATTGGAAAAAATTCANAAAGGNCCATAGGGGNAGGCCNTNGTTGGGACCTTA
GGGGANCAAATTAACCAGGTTTAGGGTCCTTAGGGGGGCAATAAACTTTCCCAAAAC
CCAACCATTTTAAGGGGGGGAAAAAAGGCCCCCAAGTTTTTGGGGAAAACCCACCNA
GGAGGCCTAATTAGGTTTTGGGGCCTTNCAAAACCCCCCTTTAATTTTCAAATTGGAA
NCCAAATTTCCGGGTNGGTTTTTTCNAACCAATTCCAANTTTTTCAAAAAAAGGT
TTTTTTTTTTGGGTNGGGGNAAAAAGGTTTCCTTTCTTTGGTTAAAGGNTTGGGAA
NCCCCAANCCCCCTTGGAATTNAACCTTNGGCCCCCTTGGGGGGGGGAAGGGTTTT
TTAATTTTTTTTTCCC

Sequence 2717

AGGTACTTTTTTTTTTTTTCTTTTTTTTTTTTTGGTGGGGGTGTATAGGTCTGGGGAGNGC
CTTTCAGGTGCTGCTCCATAGACATGTGTGTGCCCTGTATAGAAACCGCCCCCATGTN
TAGAAAAAACNNCCAGACNCTTNTCCCAAANAGNCNNGNTTCTTNACCCATGTAAANNGG
AAGGNTGNGCGTAATTAGGAAAACCAAGGGCTCAACCANANAGGGCCAAACCAATTTAAT
TAAAAATTCCGGTTCTTGAAGACCCTTGNCCAAAATGNATTACCTTGTCNCCCAATTTT
ANAGGGGAAGGCCCTATNTANNTTTNTCTCTTTGTCTGGTGGGCCCCCCCCCACTTT
CAAGGTTTGCCTTNGGNCTNCTTACCTTAAAANTNAGNNAAACCAANGGCGGNCCAATNA
AAAAANGGCCAAAAGGGGNCTTGGTTNAAAAAATTAAAAAAAGGTTTTTANTTT
TTAANCCAATTAATAATTA

Sequence 2718

TABLE 1
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TCGCGGTGGCGGCCGAGGTACANAGTCTTTTGCTTCCTCCCACCCCTAGGGGGAAAACT
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CCAGGACCTTACNGCANCGGNNANGCNCCGGGNGCAGGGCATTNGGGGGNCCTTGCCCA
AGTCATTGNTTNGNGAAATGNGGAAGNGGGGATCTTTTACCAAGGAAAGGGGTATGGAA
NGTTANGNAGGNTTCCCNGGTGTAAAGAAAAGGTCCCAATGTNATNAGGACCCCTTGG
GAAGTTAAAANGTCCCCCATGGTAAGCGGTCCCAAGAGGGTTNTTGTANTNTAANGGA
AGNGGNGATNTGNGGGNAAAAAAGGGATTGNNAAGANCCCAATTTACCGNNGGANATC
CCTTTGGGGNGGNGCCCTTTGGNGTGGAAGAGCCNCCCGATTNTAAANCCAAACCCG
TGCTTACTTTCCCNCTCNCCNNAATTGGTTTTTAAAAAATTANGNACNCAACCCCT
TTTTTTAANGGGNAAAAAAAAAAAAATTTTTNCAAACCNAAAANGGGTTTTCCCCC
CCCCAAANTTNCCCAAACCAAAAAAAAAAAAAAAAAAATG

Sequence 2719

GCCGAGGTACAAACGGGTTTCCCACCTTGCCAGGGATCCTGGGGACAACAGATGTAAAC
TCCTGAGTCTCTGTGTGTGTGCCTGAGTGGCCAGTCTGCCAGAACTCCACACAGCTCTGT
GTATTGAACCAAGGCCTTGGTGGCCTGGGCTCATGAGCAGGTCTCCTGATCCATGGATT
GCAGAGATCCATGGGAGAAGCATGATTTCCAGGCAGGGTCGCACATTCATCATTGCTT
CCCTTGGCTGGGGATTGGGGTTCTTTGGCTCTGTGCCACTCCTGGGTGGGCCATTGCCT
CACCCTTCTTCTCAGTTCTTCGTGGGTGTTTGCCTAGTCAGTCACAATGTGAGAACC
TGGCGATTTCAATTAA

Sequence 2720

AGGTACACTCGCCAGCGGTTTTGCCACAGGAGTGTACGGGAACAAAGGAGACAGGCTCAT
TTATAATCTGACGCGGNCACCTNCTGCTGCGTTTCGGTTTCCATTGGCTGGGACNGNACC
TCACCTTCTGTATTTGTCCGACTGGCTAGCACTTAGAACTTTTTAAAAGAGGCAAAGGC
ATACAGAGANCAAAGGAAGGAGGAAGTNACTTGTGGAATATTGAGAAAGGTAAAAACACC
TTAAATAAGGAAGAGGAACAGGCTATGACCTAATGCTTGTNGGATCAGTATAAGCATG
TTAGGGCAAATATTTANGCTAAATTGTGGGAGCTAAGAACATAAAGTATATTGATTTTT
ATTATGGCTAGCA

Sequence 2721

AGGTACAATTTAATTTTTCTGCTTGCCCNGGAAACAAAGCTTCTGTGGAACCATGGAAGA
AGATGAAAATGAGACTGGCAAAGAACAAATGCTGAATCTGAAGAAGAGGACAACCTTTGGG
CAAATAATCTGCATACTTTAATTGGGAATAAGATGGAAAATATGAATGCTAAATCAAAT
TTTTTAANNNATACACCACACGATACGACTCCCCGCGTACATCTTTGCTGTGGCTCACAG
ATTGTTCTCCCATTTCCCTTGCCGCTTTTGCCTATCGATGGGTAGCAAGAGTCTTTGA
AATAAGCCCATTTGAGCCCTGGATAACAAGGGATAAAGTGGAGCGGATGCACATCACAGA
CATGAAATTGCCTCACC

Sequence 2722

CCGGGCAGGTACTTT
TTGGG
GGGNAAAAAANNTTTTNNNAANANNNGANAAAAAANNNGGGGAACNNNNNGGGGNNCNC
NCCCCCNAAAAAANGNNCCCCCCCCCNNAANNAAAAAANNANTTTTCAAAAAANAAAA
AANGGGAANTTTTTANCNAAAAAANNNTTNTNTAAANNNNNTNTNNGGGGGNGGNGN
TTTTNAAAAAAAAAAAAAAAAAAAAA

Sequence 2723

GAGAANGACACCATGTGCCTCAGAACTGCTCGGTGAGACGGTGATAGCGAGCCACGCAT
TCACAGGGCCACTGCTGCTCACAGAAGCAGTGAGGATGATGCCAGGATGATGTCTGCCTC
GCGCCTGGCTGGGACTCTGATCCCAGCCATGGCCTTCTCTCCTGCGTGAGACCAGAAAG
CTGGGAGCCCTGCGTGGAGGTATGTGGCTGGAGTCAGCTCCTCTGAACTTTCCCTCACTT
CTGCCCAGAACTTCTCACTGTGTGCCCTGGTTTGTTTATTTTTGCAAAAAAAAAAAAAA
AAAAGTACCTGCCCC

Sequence 2724

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACTTTCCAATGA

TABLE 1

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ATGGTAACTGATCCAGGCACGTTATCACACTTCCTAGTCATCTCCACCTTTCCTGTATTG
CCTGTGGCTTGTTGTTTAAGATTAAGAATCAAAGAGATTAAGAAGTATCACTTCAAGTCT
TGCTCTGCTCACTTCTATGTTTGCAGTCAAATTATTCCTTATGTTGGTGACCTAAAGAGA
ATTACTTTCATTCACTTTCATTTCCCCCGTAGCAGATGGAAGTGAGAAACCTCTGAGAAAA
TGAAAACATCCTTAACCACTATCTTCCCTTTTATTTGATTATTTATGTCAGAAATTTG
CAAAAGTTTTTCTCCTCCTTCTCTTCCCTTGTTGCTTAACTTTTTAATTCATGCCATAT
GCAGATATCCAATTATGTGCATCCTGTGAATAAACACAGTCTTGGTCACTGTCATATTTT
GAACCATCTCATCAGAGATGAATAATA

Sequence 2725

CCGCGGTGGCGGCCGAGGTACGTATTACTGTTTCCCATATATGTTACAAATGAAATGAA
CACATTCTCATAAGTTAAAAAATATAGAATATATATTTTTCTTTTCTTTTCTTTT
TTTTCTGAGACAGAGTCTCGTCTGTCAACCCAGGCTGGAGGCTAAGGTGGGAGGATCAC
TTGAGGCCAGGAGTTTGAGATCAGCCTGAGCAACATAGTGAGACCCCATCTCTAAAAAA
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TTGGGAGGCCAAGGCAGGCAGGTGCTTGAGGTCAGGAGTTAAGACCAGTCTGGCCAAA
TGGGGGAAACCCCTTTTTTCTTTAAAAAANTNCCTTTTTTTTCCCCCCCATNGGGGGGAAN
NCCCCNTTTTTCCCCNCCNCCNNGGGGGGGGGGGGGGGGAACCCCCCCCCCCCC

Sequence 2726

CCGCGGTGGCGGCCGCGCCGCGGCGAGGTACTTTTTTTTTTTTTTTTTTCCAAAACAA
AACATGCTTAGCATGCACACTTTTACCACTTTTTTCGAGNGGAAAGTTTATTGGCAATAT
TAAATTTACCCTAGATAGGATATGAGAATGTTTGATAAATCACAATTTATAGTATATT
AATGCCATGTGAGAAATTTGTTTCCCAAGTAAGAGCTCACATGGAAGTGGTCATTAAAC
CTTAAAGAAACCTTTCTCACATATCTATAGGCCTCAAATTGAAATAATCTATAAATGAAT
TTGTAGATTTCTTTTTAGTTTAATTCCTGAGTATACAGGGCAAAGCTTATNTCCTTTAT
ATAAACTTCTGCTTTGGTCTAAACTGATATATCTTCACGTTGAGGTTTCATCTGAAATG
CACCACGTTTGCTGACTTGCTTCAATATGAATTTGTATGGCTATAAAATTGNGC

Sequence 2727

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTCGGGACTTTAGATA
GCTGGATTATTCTTCTTTTCTTTTTGTCTTTCATGTAGTTATTAATGAGATGGATATA
AAACCAACTACTAGGTNCATATCCCCAAAAAATGAAGTCAATATGTTGAAGAGATATCTG
AACTCTCATGATTATTGCAAGACTATTCACAATAGCCAAGATNGGGAATCAACCTAAGTA
TCCATCAACAGATGAGGNGATAAAGATAATGTAGCATATNTATACAACAGAAATNTATTCA
GCCTTAACANCAACAAAATAAATNTTGTCAATTAAGACAACACAGATAAACCT

Sequence 2728

GCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACAACCTCCACTAACCTGGGAACCTT
GCCCCCATCCCCATAGCANCCACAGCGAGACCTGCCCAAGGAGAGTCTGAGCTCAGACA
TGCCTAGCCCTGCCCAACTTGATGGGCCTTCTATCTACCCTGGTAGCTGAAGGCAAAG
GACATATACCCTTGGGAGTTCTAGGGCCCCGCCCATCGCCAGTTCCTCTCCATACTACCA
CAGCTGATGCTCTCTGGGAAGTGCCACCTCCCAGCAGCAGGCCAATCAGCACAAAAATAG
AACATTAACACCAAAAGCTAANAACCTCAGAGAATCCATTACCCCCCT

Sequence 2729

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTCCCTGTATTTTCTTTTCCC
GAGATGAAGTCATGCTCTGTTGCTCAGGCTGGAGTGCAGTAGTGTGATCTCGGCTCACTG
CAACCTCCGCTTCCCAGGTTCAAGCGATTATCCTGCCTCAGCCTCCCAAGTAGCTGTGAT
TACAGGCATGCATCACCATGTCTGGCTAGTTTTTGTATTTTATAGAGACAGAGCTTCA
CCATGTTTGCCAGGCTGGTCTCAAACCCCTGACTTCAGGTGATCCACCTGCCTCAGCCTC
CTAGAGTGCTGGGATTACAGGAATGAGCGACCACACCTGGTTTGTCTTAAAAAACATC
TTATATTTCTCTGCTTAACGNGCTCAATGTTGAACATGTGAAATATAATAACTTTTCATA
ATCTCTTCTGATTCTGGCTCTATATCATCTTTGGGNGCTGGTTTAAANGGAATTCTAATT
TTCTTGGCAAT

Sequence 2730

TABLE 1
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CTATAGGGCGAATTGGAGCTCCCCGNGGTGGCGGCCGAGGTACACGAGTCTTTTGCTTNC
TCCCACCCCTAGGGGGAAAACTGCTTTGTGCTTTGGGAAGTTGTCTGTGAAACCCGGGG
ACAGAGGACNCANGACAGACTAGGANNGGAGCCGNGAGGATGGGCTGCANCTGTNGAGGA
GGGTTTCANAGGANAGNGGTCNGATAGCACCAGGCCTGAGAAGCCATAGCCTAGGTGGAN
AGAGGTTTGAAAGNGACANAGCGGGCTGATTANCTGCCGTANACNCTTTNATNCCATGTT
ANATAAACATNNTTNAAAAACCCTTCNTNTTGTCCCAATNNTANAAAAATTAANCCCGG
GCNATGGGGGGGCGTCCCCCTNGTNATTNCTNTTTTAAATNAANAGAAAGGGNTTGNCC
CCGGGTNANTTTTANTTTTNTNACTTTNNGGGNGGTTTNTNTTTTATNNTTNTNAAAAA
ANAATTGGGGNGTNTTCAAANNNTTTNNTTGTNNAAATNTTTTATATTNTTTTTTT
TTNANCTNNCCNTNNNAACAAAATTTTTTTTTNTNTNNCATATAAAAAAA

Sequence 2731

GGAGCTCNCCGCGGTGGCGGCCGCCGCGGCAGGTACTAGTTATTTTAAATTCCTCATA
ACTTATCGGCCAAAAGTAGTCACATGGGTCCACNTAATNACAAGNGGAGCGGGAAGTGCA
ATCCTACCTTGCTGGGGAAGGTATAGAGATAGACCAGCNCTAATGACTACCACACTNG
CTAAGGTNACATAATAAATAAGCATCAGGACATTATGTGTGGNGGCTCATGTCTATAATC
CCAGCNCTT

Sequence 2732

CTATAGGGCGNATTGNAGCTCCCCGCGGTGGCGGCCGTGNGCNCGGAGNTGGTATTGACA
TAGCCTTTGTAGAAACAGTGCTTGAGTTCGCTTCNTCTTCGGAATAAACTTGGTCTGA
TTCACCCCGGGCGTCCCGAGGAGGGTGACAGTGAACAGTGGAGCGATAAATCCGGCATTG
GCGGTGAGATTA

Sequence 2733

AGGCGGGCGGCNGCCNCNCNCCNGGTACCTGATAAAAAATTTANTNCTCCTTGGCCAGGCA
TGGNNNCTCACACCNGTAATCCCAGCACTTTGGGAGGCCAAGGCCAGCANGTTGCTTGAG
CTCAGGAGTTTGAGACCAGCCTGAGCAATATGGCGAAACCCCATCTCTACAAAATATACA
AACATTANCCAGGTGTGGTGGCNAACGCTTTCAGTCCGAGCTACTGATGAGGCTGAAGTG
GGAGGATGGCTTGAGCCTGGGAAGTGGAGGTTTCAGTTGAGCTTGAGTTTATGCCATTG
AACTCCAGCCTTGGGCGACGGGNAGACNCTNTTTTNAAGAATTTGGAAAAAAAAAAGG
GAAAAAAAAAANNNNANGNCCCTTGGGCGGNATTNAAAAAANATGCNCCNCCCCCCCC
GGGGGNTTTNNGAAATTTTANNTTTTANAAGTTTTTTCNNNCCCCCNGGGGGGGGGGGGG
GGGGGGGNGCCCNNAANNNTTTTTTTTTTTTATTTAAGGGGGANGGNCCCCCCCCNAA
AAAAAANATNTTTNTTTNTNTNNCCNTTNNNNANNTANAAAAAAGN
GGGGGGGGGGGGGG

Sequence 2734

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTATGAGATGGAGTCTC
GCTCTGTTGCCAGGCTGGNGTGCAGTGGTGTGATCTCAGCTCACTGCAAGCTCCACCTC
CTGGGTTACGCCATTCTCCTGCCTCAGCTTCCCAAGTAGCTGGGACTACAGGCACCTGC
CACCACACCCGGCTAATTTTGGTTTTGTATTTTAGTAGAGACAGGGTTTCACTGTGTTA
GCCAGGATGGTCTCGATCTCCGACCTNGTGATCCGCCCCCCTCAGCCTCCCAAAGTGCT
GGGATTACAAGTATGAGCCACTGAGCCCGCCTCTCTGTAGCTTTAAGATGTTCTTAGG
TGACTTATGAGAATGAAAAATGGAGAATTTTCCGTCTTCTGCCATGAAATCAATTAAT
GGCAATTGCTACTGAAAGCTGTTCTGTTTT

Sequence 2735

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTGG
GGGGTTGCTATTATTGTTATTGTTTCTAGATGAATGTGNGAAGCCAAATTATTCAGTGTC
TTAAAGACCATATTA AAAACTCCTGCCAGGCGCAGCAGCACGTGCCCATGATCCCACTA
CTTGGGAGGCTGAGGCAGAAGGATCGCCTGAGTCCAGAAATGCTGGGCTATAGTGCCTA
AGTCAATTGGGTATCTGCACTAAGTTCGGCATAAACGTGAGGGACCACAAGGTTGCCTAA
GGAGAGGTGAACCAGACCAGCCTGGAAACAGAGCAAGTCAAACTCCTGTCCTGATGAAG
TAGTGGGACTGCACCTGTGCATAACCACTGTACCTGCCCC

Sequence 2736

TABLE 1
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GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGACAGACGAGATCTCGAT
CGAAGGCGAGATGGCGGACGTGCTAGATCTTCACGAGGCTGGGGGCGAAGATTCGCCAT
GGATGAGGATGGGGACNAGAGCATTACAAACTGAAAGA

Sequence 2737

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTATTAACAAAAACAGTTTAT
GTGCAAGGTGTATAAGAAAAAGTAAACATACCTTTGGTAAAAAGATTATAAAGGGGCATA
AGAATGTGGATTTTACCTACATTAAGGGTTAAAAACAATTATTGTTTTAAAGTTTAA
GCAAGTTTTAAACGTTAATTATAAGAAAAATTCTGTGTGTAAACATATTAGCTAAAGTT
AAAAAGGTATCATCCAGTTTTCTGTGAAGTGGACATTAAAGTAAAAATGCCACAGGTT
TTTCTTAAAGCATCAACCTGCTCTTAAACAAAAATTATAAAGGTTAAAAAGAGTCTATA
AAATCTTACCTTATGGTCAAACATGAAAAATTGGATAAATATGTCTCAAGGGTTTATTAA
AATTCAGTTTAAAAATTAATAACACACTAATATAAAGGTAAATTTAGCTTATCTGGTAT
AAAAATCATACNAGAAACATTATTAATATNAAATGGGGT

Sequence 2738

TCTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTT
TTTTTTTTTGAGACAGNCTCCCTCTGTACCTAGGCTGGAGNGCAGTGGNACGATCTTGG
GTCACCTGAAACCTCCGCTACTGGGTTCAAGCAGGTCTCCTGCCTCAGCCTCCCCAGTCG
CTGGGATTACAGGCACATGCCACCACACCTGGCTAATTTTTGTATTTTAGTAGAGACGG
GGGCTNACCATGTTGGCCAGGCTGGTCTTGAAGTCTGACCTAGCTGATCCACCTGCC
CTGGGCTCCCAAAGNGCTGGAATTACAGGCGTGAACCACTGNACCCAGCCCNNTGACCTG
TTNTTTATTTTGNNGTTAATGCCAAATNTAAATAATGTTTATGTATAAAGCCCCAT
NTCAGAGGGGGGAANTTTTTTAAACAANAATTCTTTTTTTTAAAGGAAAAAAGGTT
TGTNTTTTGTGTCANCCCTNTTTATTCAANGGNTNANCTTTCANAAAAATGANTAATA
ATTCCTTTTTTTCC

Sequence 2739

TNTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTACGAAGCCATCTTGGCT
CTGTGGAACCAGCTCTACATCAACATGAAGAGCCTGGTGTNCTGGCACTACTGCATGATT
GACATAGAGAAGATCAGGGCCATGACAATCGCCAAGGTATGTCCTCAGGGCCACTTAGGC
TGCTGAGAGGAGGGCAGCGCTGCCCCCGCAGTGCCTGTGTCCAACAGTTCAACCTTCT
TGCTGTGTAGCAGTGCTTTTGTGTCTCGTNAAGCAAGTCAGCTCACCOCTCCTTAGAGGT
TCTGGTCTGTCCAATAGAGAACGGGNGGGATTAGCATATGGCTGATTATGAGAGAAAGAA
GCAATNCTAATTTAGGGTGGCTGACAAGCAAGCCAGAATTGCCTGTGGAAAAGTTATTG
CACTCCTGTAAGAATTCTGGACCCTATTGCTCCTTTGATGTAATGGAAAGTTAG

Sequence 2740

TNTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTACGCGGGAAGTGA
ACTGAGGGCCACCCTGGGAGGAAGCCGACTAGGCGAATTCACCTACTGACCGGCCTGGGC
TGCTCTGAGACATGGAGGAAGCCAGTGAAGGTGGAGGAAATGATCGTGTGCGGAACCTGC
AAAGTGGGGGTGGGGGAGTTAANANTATTATCCCCANATTGNGGGGCGGGATCCTGCCC
CGGGGGGAAAACCTTTGGAACATCTCCGCAATAAGACAGA

Sequence 2741

GGGCANGGTACCACTTGGATGACTGGGGAGAAGGGCTGGGCTGCTGCTGGGGAGTAACA
CAGGCCTTGGGGCAGGGTTCAGGAGTTCATTAGTCTGGAGTCCAGATCGCCACCCAGGGC
CCAGCCTGATGTAGTGTTGCGGTTCTCTCAGCGCTGCAGTTTTCCGATAAAGGAGAGGAC
TCCTGTGTGCCAGAGCTCTGAATGGGAGCCTCTTCTCAGTCCAGCCAGGCAGAGGGTGAG
GCTGCCACCTTATGGCCACTGGGGGAATTGGCTCTGGGCTTGGACTCCAATAAGGGGCCG
GGAGCTGCAGAGACCTCCAAAAGGTCTCTTAAGTCTCCTCAAA

Sequence 2742

CCGCGGTGGCGGCCGAGGTACTGCCATACTGGCTAATTTATTTTTGTGGAGATGGGAT
CTCACTTTGTTGTCCAATCTGTTCTCAAACCTTTGGCTTCAAGTGAGCCTCCTGCCTCTG
CCTCCCAAAATATTGGAATTATTGGCATGAGTCACCATGCCAGATCAAGAAAATATTTAT
GTATAATTTATCATACCTCATTGGTCCTAATGTTTTTTGCTTGTAGGTCCCTTCTA

TABLE 1

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GAGATAGGAGAAGAGAGAGATCCCTTTCTCGGGGAGAGAAATNCAAGCCGTCCCGATCCT
CTTAGGGCTNGGAGGTAAAATCNTTTGATAACTTTGTATTNAAAACCTTGCATCCATAGT
ATGCTAAGGCNTTNTTTANCCCCAAAAATTTTNCCTTAAAAGTTTTTTNGAATTNGCNC
AAAAAGGGCCCCNAANACCCAAGNNAAGGGNNGGNNCTTTTTTTTT

Sequence 2743

CCGGGCAGGTACTTT
TT
TTTTTTCCCCNGGNNNNAAAAATTTTAAANNNGNNNGGAAAAAAAAAAANCNGGGGAAAANG
NNCCNTTNTNNNAANCCNTNAANNAAAAAAANNCCNNNAAAAANNAAAAAAACCCCAA
AANNNNNTNNNAAAAAAANCNTNGGNNNAAAAAAGGGGGGNGNNANTTTNNNNCCC
CAAAAAANGGTNNGGNGGGAAAAAATTNNTNNCAANCCANAANTTNANTNCAAAAAAN
CCNTNNTTCCCNTGNCCNTNAAAAAANGGGNACCCCCNGGGGGGANANAATANNAAAA
AAATTTANTTTAACCCCCCCCCCAA

Sequence 2744

GGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTGAGACGGA
GTCTTGCTCTGTGCGCCAGGCTGGAGTGCAGTGGTGCATCTCGGCCACTGCAAGCTTC
GCCTCCTGGGTTACACCACTTCTCCTGCCTCAGCCTACTGAGTAGCTGAGACTACAGGCA
CCCGCCACCACGCCCGGCTAATTTTTGTATTTTAGNAGAGAGGGCGTTTCACTGTGTT
AGCCAGGATCGTCTTGATCTCCTGACCTCGNGATCTGCTCGCCTCGGCCTCCCAAAGTGC
TGGGCTTACAGGCGTGAGCCACCACCCCGGCCAGTCTTGTTGTCTTAAATACCATTTCC
ACATTGACACCTCCAGAATATTTATCTCTAAACCTGACCTCCAGAAGGTGCAAGCANATT
GTGTAACCATGTCTCCACTACACGCCTAAAGGCA

Sequence 2745

CCGGGAGGTGTCCGAACAGGCAGGTTGGTGGGTTAAAGGTCTTAATCTTGACTCGAGATC
TCTCCCCGGAGTTCACAGAGTAGGCGACGAAGCCGAAGCAGCTGGAGCGCGACCCGGAGG
AGTCTGACTTCTCGTTGTCTTCATAATTTTCATTGCTTCTTCTCATGGACTTGCGGC
TGGGGGAGGATCCCCGCTGGTCCGAGCANGCGGGCGGGTAAAGGTAGGCCGCGAGAGC
CAGGTTATNGAGAGGAGAGGAGGC

Sequence 2746

AGGTACCTGTGACTAACAAGGGGTCTGGGAGGATCTGCTGCTCCCATGCCCTCCTTTGTG
TGTTTTAAATCTGTTTGAGCCTTCTGGGCTCCTGCGAATTAGGGAGTGGCAGCTCCTCAG
TCTAACTCCTATTGNGACCAGGTTGCCTAATTGGCCCTTTGTTTTGGGCACCCACTGTCC
TTCTGCGTGGTTGGATAGATGCTGCTCCCAATGTCCCTGATCTCTTACAGACCCCTCTGA
TTCTTCACTCTTGGCTTTGAGAGCCCCTGATGCCCTGCAGTCTTGACTGAGCTTCTAATG
GTTGATCAGACCCCTGAATGTTGAGCTCTTCCATACTAGACTTGAATATTCTCCTG

Sequence 2747

GGCGGCCGCCCGGGCANGGTACANGACATTTTCAAAGTTGCCAGTGTTACTTTAATTGGA
CTGCCTTCGTAATTCATTGCCTCTGCTTCAACAATGTGCAACTCATCCTTTGCACCAGCC
CCTAAACTGACCGTTCTTAAAGATAGCTGGTGCTCATTTTCATCATTATCCACCTTAAAG
NGATAATCTTTGTGCGCCTTTAGTTCACAACCGGAAAAGATAGTTCTGGGGCCTNAGGGGG
CTCATGTCCATGTCCATCGAATCTTCCATNGGGNGGCGGCACNCNNTTTTTNTAGNAAAG
AAGGCGGNCGGAANATAAAAAAACTNTNCTCCAAAAAACCCCGGNGCANGGAGGGNA
NTCANACCAGGGGGCCCCGTTTNCCTNGGATCNTTTNATAAAAAAATNGGGGNCNCCCN
CNGNGNNNGGNNGNAAATTCTAATNNTAAANTTTTTANCCCCCCCCCCCCCCTNGGGG
GGG

Sequence 2748

CCGGGCAGGACTTGGAAGCTGAGGCATAAGAATCACTTGAACCCGGGAGGTGGAGGTTG
CAGAGTGAGCCAAGATCGCAGCACTGCACTCTAGTCTGGGTGACAGAGCAAGACTCTGTC
TCAAAAAAAGAGACTAGAGAATGTCAGGGAACACATGTGTATTTTAAACAACCTTAC
TTTGCAATTAATAACTCGAAGGACAGCGAAGGTGAAATCAATTCACGGGCCACCTAACT
TTTCAGTCTAGGACTNAGAGCTTGTANCCATNGATCTGTNNGGNTTGNACCTCGGGCCGN

TABLE 1
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TTCTANAAGTAGTNGNATCCCCCGGCT

Sequence 2749

CCGGGCAGGTACAACATGAGACATGACGCCCTTCGGGACACATGCCTGAGGTAGTGACAA
TCCAACCTTTGGAAGAGTGGAAGCCCTAGTTTCAAATTCAGCATGCTTTGAGTATAAATT
AAGTTTACCTCTTTTGCACAGCAACATGGCCAATCTTTCCTAAGCTGCTCAGCTTACAA
GAAAAGGAATCATACTGCTAAGAAATCAAACCTTCAGCAGTCATAGGTAAAGTAAGGGAAG
TTTTNTAAACNTATTTTGTAGCCCCNTACCCNGAACCTNGNAAATTTTNGCNAGGGTT
TTTTCAATTTTTCNAGGGACAGGTTGGGGTTTNCNTTTAAATCCANAGGGCCTTTGGAA
NACCNTGGAANAAACCAGACCCTTTTAAAAAAGG

Sequence 2750

CCGGGGTGGCGGGGTTTCGCCATGTTGGCCAGTCTGGTCTTGAACCTCTGACCTCAAGTG
ATCCACCCACCTTAGCCTCCACAGTGCTGGGATTACAGGCATGAGTCACCACACCCGGC
CAGTAGAAGCTCTTAAACCTGAAAAATCAGTCAACTTTGCAGACTAGAGGAGGATGTTGA
ACACCTATGTGTGTATTTTTTTCTTTACCAACTATGCACCTATTTTTTCAGACACCTAAA
AGTAATGTCTGTGAAACAGTGGGTTTTCTTTTT

Sequence 2751

CCGGGCGAATTGGAGCTCCCCCNGTGGCGGNCGCCCGGGCAGGTACAATGCTTATAAAA
TTCAATAATTTGTATTAAATACAAAATCCNATAACAACCAGGAGTTCTTCGGAAGAAAA
AAAAATCACAAAACAACCCCAACAGTGGTGAAGAACTA

Sequence 2752

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCAAAAGCTCCCAGATTATTTGGAAACCA
TGTTTTCTTCTAGTCCATGGTAACAAGAAAAAGCCANTGGAAGCATCATTCCAAACAAT
AATCTCCAAAGATGGTGGCAACCAAGTGTCAAATGGGGACTGCAGGCACAGAAGAGACCA
CCCCAAACCTGCCTGGGTGGACGAAGCAGGTATGCTAGAATAGTCCTGCTCCTGCAGAAT
AGGGAACGGCAGCTTGGTCGATCTGTGCCCTGGAAAAAGAAAATGAGTTGCAATAGAAGT
GACTNTAAGACAGACAATGAACCTACTNTTAAGAGAGACAGGGCCAGGCACGGTGGCTCA
CGCCTGTATCCCAGCACTTTGGGAGGCTTNAGGCGG

Sequence 2753

GGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGCAGAGACAATGGAATAAACAGCCAAG
AATGTTAAATAGCTATTATAAATATGATCCTTATGCTCATAGAGAAAAGGAAAAATATA
AGTATAATGTGAAAAGAAATGGAAGATATAAAAAGAAATGCAACTTCTAGAGGTGAAAAA
TATGTCTGAAATGAAAACACCATATAGATGGAATTACCAGGAAATTAGACACTGCAGAAG
AAAAAATCCATGATGTTGAAGTATATTGCAATTAACCTATCCAAAATGAACTGAGAG
GGGGAAAAAGCCCCCTGAAATGTATGAAGAAAGCCTCAGTGACCTGTGAGACAATATCAC
AATGGCCTAACATAAGTGAATTTGGAATCCCCAGAAGGGGTAGCAGGCCCGAAAAAAT
AATTGTTTGAATAAAGGGNCAAAAGGTTTTCCC

Sequence 2754

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTATTTTTTTTTTTT
TTTTTTGAGANAGTGNGTGACTNTGNCACCAAGGCTGGAGGGNNGNGGNAAGANCATAG
NTCACTGAAGCCTCCATNTNTGGAGTTNAAGGGATCCTCCCGCCTCANTCTCCNAAGCTA
AATTTTTTTTTTTTTTTTTTGTAGNAANANACATGGTTTCACTATNTTTGCCAGGCCAG
GTCTAAACCTTNCNTNACTTNAANGCAANTNNCTTCTNCCTTTAANCCTTCCAAAAAGGNG
TTTTGGNATANNNNTNANACNCAGNCCCTTNTNCCCTGGGCTCTTTCNTTNTTAAAGAAAG
GACACTTTAAATCANTTTTTNCNCNCNCAGAGATNAATTGNGCAACAAACANTATTANGT
TGGGGTTTTATTTNAGGGTTCTNNCCCCGNNNGGTCCCTTTNANAAAANNNTNNGGGAAN
CCCCCCCCGNGTNTGGGGGGANTTNTNANNNTNCAANTTTATTTTATTNCCCCCCCCCCC
NTCG

Sequence 2755

CGCGGGGGCGGCCGGGAANGGNCNGGAANGGNAGTCANGCAGGGAGCGTCTGTCCGAAC
GGAGGCTAGGTAAAGAAATTTTACCATGAAAAATGTTAAAAGACATAAAGGAAGGAGCTAA
ACAATATGGACCCANCTCTCCTTATATGAGAACGTTATTAGATTCCATTGCTCGTGAAAA

TABLE 1

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TAGACTTATTCCTTATGATTGGGAAATTTTACCTAAATCTTCCCTTTCACCCTCTCAGTA
TCTACAGTTTAAAACCTGGTGGATTGATGGAGTACCTCGGCCGCTCTAGAACTAGGGGGA
TCCC

Sequence 2756

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTGGAGNGAAACAGGAGTGCTTTATGGTCTGAGTGGAGTGTTG
GGAGGAGTNCCTCCCGGNTCCTGCCTTGGGGCTCACCTCCCG

Sequence 2757

CCGCGGTGGCGGCCGAGGTACATCTTCTCCTAAAAACAAGGGTAGAGCCAATGGAAAGTA
ATGGTCTGTACATAGAATGAGTTGTCGCTTGATCTTAAATGATGTATTGGTAGATAT
ACTTCCCAAGTGGATTAAAAAGTTAAACTTACAGCATAACAAAGTATTAGACTTACTGA
GGTGACTTGAATATCTCCTTTTGATTTTCACTCTATTTTCTTTTCACCCATGGGAAAAT
GATAATTTTTTAATAAACCAAGGCTCTTACCATAGCTGAACTTTAAACTTAGACTGTCT
TTTCTGTAAACGATTCTGAGGCAAAGGGAAATGACTAGAAGAGGATGAGTAAACAATAAC
CTGAAATGGGAAACTCGAGGGAAGCACAGGCTTTTTTTTGGTTTGTGTTGGTTGATNCGT
TTTTGGTCTTTG

Sequence 2758

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAGGCCGGTGGGCT
CCCTGACATCCCTTCCAGGCAACCTGAAAGCACTGAAATAGCTTATGGCCCTGTGCCAGG
GACCTTGGCCCAAGCTGCTGACCTCCAGGGTGGGGAGGGAGCTACCCCAAGGAGAAGAGT
CACTCAGACAGCAGTATGAGCAAGCCAGCCAGCAGCTCCGTGCCTGCACCCAGCTCAGGG
GAATCCCAAGGGGTTTCCAGATGCCAGGAAGGAAAAGGGGACAGCGCTACTGCTATGGAAT
GAGACCACCACTTCTCCTGTTGTCTTCCAGCTTCTCCCCAACCTCCCTTTTCTAGT
TTATAAGACAGGAGAAAAGGGGAGAAAAGCAAAAAGCTGGAAAGAAACAGAAGTAAGATAA
ATAGCTAGACGACCTTGGCGCCCCACCTGGCCTGGGNGGG

Sequence 2759

CCGCGGTGGCGGCCGCGGCCGAGGTACAGAAAATTAGCAAGAGACATTTTCTGCATTGT
GAGAAATCAACATAGACACCTTAAAGACCCCTTTGAGAGTGTGGCTTTTTGAACTTTTCA
GATTTTGCTCAGTGACCTGCTAACACTTACGTGAGAGGCTCCAGGTGTAAATAGAATCTA
ATGGCAGAATCTGTAAGTGTAAACAAGCATCTTAGGAGTGAGAGATCAAGACCACAAAAT
GTCCAGAGCTATGACCACAGCTATACCTACCCATAAAATACGATACTGGAGTAGGGTATT
TTTGTCTTTTTTTCTTACCTAAGAGCTAGCTAATCAGGACAGGTGATGCAGGTTCTGGAG
CTCTACCAGGGCAAGTTCTATTTTCTTTTTTGGAGACAGAGTCTCACTGTCCGCCCTG

Sequence 2760

CCGCGGTGGCGGCCGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTCGAATATTNCTTT
CAGTGTTCTCAGATTGACTTGACCAGCCTAAGACAGATGCCAGGGACATCCTCTTNTNTG
CCTNTNAACACTTCAGTCAGATGGGAATATGGAAGGATCATATNCAAGAGGATCATATTT
TNTGAAGCCAATCCATTANATGTCAGGAAA

Sequence 2761

AATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTGTAGATGTTCTTTGGTATCTGGGCA
TTGAAGAATTAGGTATTTATTATAATCTTCACAGTCTGAGCTTGTTTCGTAGTGGTCCTTC
TTGGAAGGCTTTCTAGATATTCAGAAGGACCGTAGGTGTTGTGATCTAAGCTGTATCTG
CTTTAGAGGGCACCCGAAGCCCCGTAATGCTCTGGTTCTTGCAGACTTCTGGAGATACTG
CCTTGATGGTCTTGGATAAGATTTGGAAGAATCCTCTGGATTATCAGGCAGAGACTCTTA
TTCTCTTCTCTCACTTTTTTCCCAGAGTCTTTCTATGCTGAGCTCTCTGGAGCTGGGGGAG
G

Sequence 2762

TNNCCGCGGTGGCGGCCGAGGTACTGTCCAACCAAAACTTTCCACNGNGAAAATTTTCTT
GGGTGAGCCTCCCAGAAAAGCCCAGCTTAGTGTAAGCCAAAGACCTCCAAGTCTGTAC
CAATTTTTTCCCTATTACTCACCTGATCATGTGGGCAATATCCAGTTGGTCTCTGTAGA
CAATGGTCCCTCTATTTCAACACCTTTTTCGGTGACAGTGGCGATTGAAACTGGAAGAA

TABLE 1

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AGCAGAGCATTCAATAATGCCACGCCTTAAGTCCTTAAATGAAAGGTCAGGTGGAGGTC
TCCCCAATGTGAAAATAGGAGTCACACAAGTAAGGCGNATCTGTTCTTCAAAGCATAGG
CTC

Sequence 2763

AGGTACTATAATCTCCTTCTCCACTGGCAAACAGATTATACCAGAAAACAGCAGTTCCCT
ATGGAGAACAATTTACAATTATCCCCAAGTATACAATGCCAGGTAATTGCTTTCGGTAG
TTATTACTTTTTTTTTTTTGGAGACAGAGTCTTTGCTCTATCGCCCAGGCTTGGAGTGCAA
TGGCTCGATCTTCAGCTCACTGCAACCTCC

Sequence 2764

GCGGNCGAGGNACAANCNACTTGGGGGGGCGANAAAACCGCCCCCCCCACGANGAGAAGG
GGACNANGAGAANNNTTACACACAAGNGGGGGANNNCCCCNAAAAAACCGGGCGCAGN
GGCNACACNNNGNAANNCCAGNACNNNNGGGAGGCCGAGGCTNTTNAAAAAATTNNT
TTNGAGGGGGGGGGGGCCCCCGN

Sequence 2765

CCGGGCAGGTACGCGGGNTTCCGCGGGGCTTGCTGGGAAGAGAGGCGAAGCCAGGTCACC
TTTCAAGGACCCAGAAGTAGGGTTTTGGCCTAGGTAACCGGGGCAGAGATGTGGTTCGAG
ATTCTCCCCGGAAGTCTCCGTCATGGGCGTGTGCTTGTGATTCCAGGACTGGCTACTGTT
TNCCT

Sequence 2766

ATAGGGCNAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACTACCCTCTGCTTTTGCAAG
GACTCTACTGTGTATCTTAAGTGAGACAGGTGCATATGTATACTAGTAAATTTCTCTGC
TTTCCTAGCATTGGACAAAAACAAAATCAACAAAAGAATTGCCTCAGTGTCTTAACTG
GGATCCTTACTAGTTGACTAGGCACCTTAGTTACTGAAGGATATGTGTGGAATTCAGTTT
TTTTCAACCTATAAGAAATATCCGGCCAGGTGCAGTGGCTCACGCCTGTAATCCCAGCAC
TTTTGGGAGGCCGAGGCAGGAGGATCACAAGGTCAGGATTNTCAAGACCNGCCTGGCCAA
CATAGTGAAATTCCTGNCTTCTACTAAAAATN

Sequence 2767

CGGCCGCCCGGGCAGGTACTATTACTAGGTTTATTGTTTCCAGAGGGGTGAAACGGGGCT
TTGGAGAGGTTAAATACTTGCCAGGGTCACACAGCTATTAAGTGGTAAAGCTGGGATT
TACATGAGCCCAGACAAAGAACCCAAGAAGCTAAGCTATTNTCTTGTAAATACCTNCAACA
TAGGAGGCAAGAAGTGAGGTATTATACAGTTGAGGAGATA

Sequence 2768

CCGGGCAGGTACGCGGGCATCAGCTCCGTGGGAACTCACGAGCCTGGGGAGAGTTCGTCA
TCCCCACATGGAACCTCAGTATGGCCAACAGGCAGCCCTCTGGTGGAAAAATCAACAATC
AGTCCTTGCANCAACTTGATGGAACNCTAGTTGACCACCATAAAGATGTCAAGCCAGGCA
GCA

Sequence 2769

AGGTACTACTGCTGAGGTCTCCAGGACAGAAGTCACCTCCTCTGGTAGAACATCCATCCC
TGGCCCTTCTCAGTCCACAGTTTTGCCAGAAATATCCACAAGAACAATGACAAGGCTCTT
TGCTCGCCACCATGACAGAATCAGCAGAAATGACCATCCCCACTCAAACAGGTCCTTC
TGGGTCTACCTCACAGGATACCCTTACCTTGGACACACCCACCACAAAGTCCCAGGCAAA
GACTCTCACTTTGGCTCAGAGATTTCCACACTCAGAGATGACCACTCTCATGAGCAG
AGGTCTGGAGATATGTCATGGCAAAGCTCTCCCTCTTCTGGAAAAAT

Sequence 2770

CCGGGCAGGTACAGTTGGACCTGCTGGCATTGAGGGCCCTCAGGGTTCACCAAGGCCCTG
CTGGCCCCCTGGTCCCCCTGGCCCTNCTGGATCTCCAGGTGTAAGCNGTGGTGGTTAT

Sequence 2771

CCGGGCAGGTACTGTAGATTGAGATATAACAAAAAGATGATTTCTGAAATAATATTGGGA
AAAGAATTTACCGGATGGTATTTGTATCTTGCACACCTCTGTTGTTATGATGCTATAA
GGCAATCTTGTCCAACAGCAGCTCACAGGCCACATGCCACCCAAGATGGCTTTGAATAG
GGCCCTATACAAATTCGTAAACTTTCTTAAACATTATGAAATTTTTTTTTTTTTTTTTT

ACAATAAGGCTCTTGAAAATTGTCATTACTTGTGTTTTCTATACATTCATCTGTGTGAA
AGCCTTTTTCTTCTTTGATTTAAAAAATTAACATAACAGTTAATGGTTAGAACTTAGA
ACTAC

AGGTACACTCAAAGGCTATGTTCTCTCTCAGGACTCAAGATGAATTACTGGCAGAATTCC
TCACTACATCCTTTAATGAAACCTCTGTCTGGTCTCATCATCAGTGCTTTCATATTCTG
ATTCTTCACTAGATAATTCTCATCTCGTCTGGCAAAGGAGGTTCTCAGGTGGCTGAG
GAGATGTGGGTGGAAGAGGTGCATGCAATGGCATATAGTCTTCATACATGGGAGGTCCCG
CAGTAAATTGGTCCAAAAGGTGTGGGCAAATTCATTTATTATCATAAGATGAAGGACCTGTN
CCTGCCCCG

CCGCGGTGGCGGCCGAGGTA

CTCAATGTTTAGCTCCCACTTAGAAGTAAGAACATGCCCA

GCACTTTGGGAGGCCGAGGTGGGTGGATCATGAGGTCAAGAGATC

NAGACCATCTTGGCT

AACAANGTGAACCCCTGTCTCTACTAAAAACATAAAAAATTGGCCCGGGTGTGGTGGTGG

GCACCTGTAGTCCTAGCTACTCGGGAGGCTGAGACAGGAGAATCGCCTGAACCGGGGAGG

TGGAGGTTGCAGTGAGCTGAGATGGTGCCCAACAAGAGGGAAACTNCTTNTNAAAAAAAAA

AAAAAAAAAGAAAACACAGGTATAATTTCTACCATGTTCTTACNGGATCATAACTTTAAAT

GGTCACCCGCGTNCCTTGCCCGGGGCGG

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTGAATAAAAGACCATTTTTATTCTA
ATTTAACTCAGAAATTATTATGCTTATTCAATTTAACACTTTGCTGAAAGGTTAAAGA
GATAAGAAGGACAGATTATAATTGCTTAATATTGCTATGGTAACTTCCATTCAAATACCT
GTGAGTCACCAGAAGTCAAAAAGGTAGCCAGCATTGCAACACAGGATGGATCATGCAACA
GAACTAGCACCAGGTTACCTTATCTTATAATATTATTTGCTGTTAAAATGAAATTTAA
AACAGCACCAAAAAGTTAAGTTGGGGCTAAAAGTGTGTGCAGGAAAGATTTCATATAGCA
G

TGGCGGCCGCCCGGGTNGGTACCAAAGCCAGATCCTCCTGTTTTGTAGCAGGAAGCCCTT
TATTAGTTNNTCTCTATCAATCCATCTTTNATAATNCCAAAAATAGGATAAG

CCCACGCGGGCGAAAAITTTGGGGAGGGCAAACACCCCCGCGGGNGGGCCGGGGCCCCGCC
TCCNAGTAAACCTAAGAGGGGGAGGNTNTTCCAANNCCCCGCAGTNTNNNTTAAANCCCC
ATCAAGGCCCNAAACGGAANAACCGGGGGGGACCATCTNAAGGGGGGGGGGGGGCCCCC
CGNGGNACNCCCAAGCCAANNANGNNNCCCCCGNAAAGNNGAGGGGGGGCGNAAAANA
GGCAGCCGCCCNCCGNAAAAANCAAGGGGGNCCAAAAAGNCAGGGGGGGACCCNG
GGCGGGGGGAAAAAAGGGAAAAANCCCCGCNCCAACCAAAAANNNCNANCAACCAACCA
ATAACCAAAAGCCCCGGGGGAAGGCCAAATAAAAAANNAGGGGNAAAANGCCCCGGGG
GGGGNGGCC

[illegible]

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTTTTTTT
TTTTTTTTTCCNCCCNAACCAGTTCTAACCGCANGNCAATTAGTTTTTAAAAAGTCTCT
CTCTTCTCATGTTTTTCTGCTTTGAAACTCAAGNGNTCTCTTTACTTAATANATCAA
GATCCAACTAATTGGACATTAATCAAGACTCTNTACAAGTNGACTATCNCTAACNGG
CTGGGGGCACTTCTGCGGAA

Sequence 2779

TABLE 1

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ATTGNAGCTCCCCGCGGTGGCGGCCGAGGTACATTGCTGGCCTTTGCCCAAATTATGCTT
NCCCCATTGGTATGACCTGACACCATTGTGATCAGTCTGATGACCTGGCAGCATCCCAT
CTGCCTACCCAGTTCACNTTGTCTCCATTTACAGGGCCTCTTACAGGCAACTNCTNACATA
TATTTTGGACACTGACTCATGCCTTCTNAGGCTNAGCTAACATCAGCCCATTTCATTGATN
CAGCAAGACAATTTGAGAACCCTATGTGCTCTGCCAGAGTGAATAACAAAACCGCAAGT
ACCTNCCNGGGCGGNCGGTCTAGAACTAGT

Sequence 2780

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTTTTT
TTTTTTTTTTTTNTNCCTAACCAAGTTCTAACNCAAGTCAATTAGTTTTTCANAAGTCTCT
CTCTTCTCATGTTTTTCTGCTTTGAACTCAAGNGTTNTCTTTTACTTA

Sequence 2781

GGGGGGGGNTTTGGGGGGGGAAAAAGCCCCGGGGCGGGAGNGGACAGAAAAAGANNTNNGG
GNNGNGAGGGGGTTAGGAGNAANCCCNNGNGGGTTTTCCNAAACCCCGAGNGANGCCGGG
NCGGCNNGCGCGCANNGGAGGGCAGNGCTATGNANCCGNCNNGGNACNCCCAGGCCCN
GGGNNCCACGNGGCCCNCCGGCACGNACNGNGCCGCNAAACCNCGGNAGGNCAGGCGAN
GNANCCNCNCGCANAANNGAAGGAAAAAAGGGGAAAAAGCGGGGGCAAAGAACCAACAAC
NCNGGGGGGAACCAAGCNAGGGAAACCCGNGAGAANAANANANCNGGGGANAANNNGG
GGNGGANAGNAANAACAAAGGGGAAANGGCCCGGAGGCGNGGAAAACCCAAAAAGAGAG
GNNAACGGGGGGCGGNNAANNGNACCANNGGCGNAAAAAAAAAAGANAAAAAGAGGGC
GGNGGGGGGGNCGNAAAAANAACACACGGGACCCCNNNNAAGGGGGANACCCNCGGGG
GNGCCGGGGGGNCCCCAAGNAAAAACCNAAAGGGAGGGGNANNNCCCCCCCCCGNGGGACC
CGNANNAANGGGAAAAANCCCCGGAANGAAAGNCAAAAGGCCCNNGNAAACCGGNAAAAA
ANCNCGGGGNCAGAACCCCCCNCAANAANGGGGGGGGGGGGGCCCNAGGGGNAAACCCCCA
AGGCCCGGGGGGGGNGNCCCCCNNNNNCAANNNNNNNNNNAAGGGGNNNCNAAAAAA
AAGCCAGCCGGCCNCGCGGNNGCGGAAAAAACNAACGGG

Sequence 2782

TCCCCGCGGTGGCGGCCGCCGGGCAGGTACCATGCOGATCTCTGAGAAGTTNTGTTGCA
CCACTGTGAAGGTCTAGATGCAAGCTTGGCTCCCTCAGAAAGGCGCTTCCCTTTTGCATG
GCTGAGGATCCTTGAAGGAACCTGGTCAGTCTCCGGTTCAGCTTCCGACACCAGAGTGGA
ACCCAGTAAGCACCATCAGGAATGGATTTCACTACAAGTGTGGATAACTCTGATTTTCAA
AGGAGTAGTTACTTGCAAATTACATCCTTGCTGAATTCAGGAGGTATGAAACCTATTTT
ACCATGTTAGAAAACAGCCAGGATTTTCTCATTGCTCTGCCATCATATATGTCTATGAC
TTGAGCCCTTATTTTTCCATCTGCAAAACAATAATGCCTATATGTCTTTGCATATAGATT
TGGAAATCTTCATTCAAGGTTTAGTAGGATCA

Sequence 2783

CCGCGGTGGTTCGAGCGGCCGCCGGGCAGGTACTTTTCTTCTTGAAGTGAGTTTAGATCA
CGTTTCAGCAAACGTCTCTGGAGCTCCTTCTCTGGGGAAGGAGCAGCGGAGGGCTGTC
ATCACCCTGCACTCTTCCAACCTTCTCTTCTGCTCATTACCCAGTTCATCCTCATCTG
ACCATATTACTCCAGGAACTTCCCTTTTCCCTTGTAATTCTGTTCCATTTTGGCCAAA
CCATGGTTTGCCTCTGCTGCATTAGTTTGAAGTCATTTTTTTCCAGACATTGTGGCGGT
AGTTCCAGATGTCCGAAAAGATGAAGTTATCAGTGCACGAGCAGCCAGGGCTTTTCTTT
ATGTTGATTACCTTAGGACACAGCCCAACAATGCCTGCAATTGTCAATTAGCCCGTGAAG
AGTTTCGCTTAGGGCTGCCACAGCACAGAGTCCCAGCTGCGCCCGTTTCTTCCCCCCCC

Sequence 2784

CCGCGGTGGCGGCCGAGGTACTAATTTTTTTTTTTTTTTTTTTTTTGTATTTTAGTAGA
GACGGGTTTACCTTGTTAGCCAGGATGGTCTCTATCTCCTGACCTTGTATCCGCCAC
CTCAGCCTCCCAAAGTGTGGGATTATAGGTGTCAGCCACCGCGCCCGGCCTGAATATCT
TTTTATTTTTAAGCTTTCAATAAATCTTACTGACATCTAATTGATAAAAGTTGCACATA
TTAATGTATACATTTTGATGAGGTTGGACATATGCATACACTNGTGGTACCTGCCCG

Sequence 2785

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTT

TABLE 1

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GAGACGGAGTTTCACTCTTGTCACCCAGGCTGGAGTGCAATGGCGCAATTAGGGTTCCT
GCAACCTCTGCCTCCCGGGTTCAAGCAGTTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGA
TTACAGGCATCCACCACCGTGCCAGCTAATTTTTGTATTTTAGTAGAGACGGGGTTTT
GCCATGTTGGACAGGTTGATCTCAAACCTCCTGACCTCAGGTGATCTACCCTCCTCGGCCT
CCCAGAGTGTGGGATTACAGGCATGAGCCACCATGCCAGGCTGCTAATTCTCTTTTTA
GTGAGTTAGGGAAGTGAAGCCTCAGAAAACCTTAAACGATTTCTCAGAAAACACTCAAGTGA
TAAAGTGGCCCCATTGGAAAGGAGGTTTTATCTTCTCATTGGCAGGCCAGNGTTCATT
GCACAATATCATGCTACCTCTTGAATCTTTAAAA

Sequence 2786

TCTTAGGGCGAATTGGAGCTCCCGCGGTGGCGGCCGAGGTAATAATTTTTTTTTTTTTT
TTTTTTTTGTATTTTAGTAGAGACGGGTTTACCTTGTTAGCCAGGATGGTCTCTATCT
CCTGACCTTGTATCCGCCCACCTCAGCCTCCCAAAGTGCTGGGATTATAGGTGTCAGCC
ACCGCGCCCGGCTGAATATCTTTTTTATTTTAAAGCTTTCAATAAATCTTACTGACATC
TAATTGATAAAAGTTGCACATATTTAATGTATACATTTTGATGAGGTTGGACATATGCAT
ACACTCGTGGTACCTGCCCC

Sequence 2787

CCGCGGTGGCGGCCGAGGTACAATACAATCTAGATGACGGTGCAGACTAAGTCAAGAACT
AAAGTTGTGCAGTAACCCGAGTTAAGGCATGAATGCGGACACACACATGCACACACACAG
CACCCATGCTATCAAGACACAGGATTTTTTCAGTTGCCTCATGAGAGGCAACCTGGGCTT
GGCAGTTAATCAGAACTGCTGAGCATTCCAGAAAATGCCCCCACGACTTTATGCTAACA
GCTGTGTGTATGTTTTAATCAAAAAATTAAGAAGAAAAAAACCTAAAAACAAAGAAA
AAAACAAACAAAAAATCACCAAAAACCTAGAAACCCCTTAATCTCTTACAATGGCTCTTG
AGCATGGAAGTCAATGAGCAGCATCAATGGCTGGCTCTTTAACAATTTGGAAATAAAAGG
TTGGTTTACTATGTATTTCTTTGGTAGTCATCACTACCAAAGTT

Sequence 2788

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTTGCTTTNATGTCTTTA
TGTATTTATTTTTTTTGGAGACAGGGTCTTGCTGTGTTGCCANGCTGGAGTGCAGTGGC
CTGGTCATGGCATNAAGGCTCACTGCAGCCTGGACCTCCTGGTTCAAGNGATCCTCTTGT
NTGAGTCCCTGANANAAAACCCACCCCNCTACANAAATTTNTGGAAACANGGGCN
NNAANCTGTTNCCTANGCNTGTNTGGAACNCTGGGCTCAAGGGANCTTGTANCCTTANC
CNCCTAAAANAGCTGGGANTTATAAGGCATGANNNAATTGTANCCTGNCCCGCGGGCCN
CTTTANAAAAAGTNGGAANCCCCCGNCCTTGAGGAAATTTATTATNCAACCNNTN
NAATCCCCCCCCCNCCAN

Sequence 2789

CCGCGGTGGCGGCCGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTTAG
NAGANATGGGGTTTACCATATTGGTCAGGCTGGTCTNGAACTCCTGACCTTGNGACCCA
CCCGCCTTGGTCTCCCAAAGNGCTGGGATTACAGGCATAAGCCCCCGTGCCCGGCCACA
TGGTATTATTTATATAAAACGCAAGTTAAGTNTTTATGTGTGAAAAACTTTTTTGAAA
CTTTNTCAAAAAGAANTTNACTTATTNGTTAAACCNTTTTTGNCTAAGGGCCAAATA
NGNGAAAAAANCCCNATTNNNCTTTTANATTTTNTTGGCNAAAAANTNAAAAAAN
ATTTNNCNNTTTTTTGGNGNNANTAAAAAAAAGGGTTTTTTNTTTTTTAAAA

Sequence 2790

TACTATAGGGCGAATTGGAGCTCNCGCGGTGGCGGCCGCGGCCGAGGTACTTTTTTTT
TTTTTTTTTTGAGACGGAGTTTCACTCTTGTCACCCAGGCTGGAGTGCAATGGCGCAAT
TAGGGTTCACTGCAACCTCTGCCTCCCGGGTTCAAGCAGTTNTCCTGCCTCAGCCTCCTG
AGTAGCTGGGATTACAGGCATCCACCACCGTGCCAGCTAATTTTTGTATTTTAGTAGA
GACGGGGTTTTGCCATGTTGGACAGGTTGATNTCAAACCTCTGACCTCAGGGGGAATTAA
CCTTCTTNGGCTTCAAAAAGGGTGNGGGATNAACNNGGTTGNGCCCCCCCCCCCCNNGG
GGGGGAAAAAATTCNNTTTTTTNGGGGNNNGGNNNCAANNCCCCCNAAAAAAN
NNNNAAATTTTTTTTANAAAAAANNANCCTTTNTNAAAAAATGCCCCCNCCCCAANG
NNGNNGGGNTTTTTT

TABLE 1

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Sequence 2791

GGTCTTCTATGTGGGTGTCAAGGATATGCTCCCTCACGGCTTCGGAAGGCCCCCAGCAAA
AGATCTAACATTCTTGCTCAAAGTTGCGAGAGAAAGTAGCACATGGAGTAGCTGGGTTGG
GGCGGCGGCCTCTTCTCTTCAGCTCCCTTAGCTTGGCTCCGTAAGTGGATCACTTGCCAA
ATGCTTTAGATGATTGCCTCTCAATAATTGAAAGGTGGTGGTAAGTTGTATTGCTGCACT
GTCGGTGTTAAGAGAAATTACTCTCACAAGAGCAGAGGCCTGAAGATTCTTTCTTCTGAA
GGGATGATGAGCCTGGACTCTCTGGACTCCTAGATTATGAACTCCTGCAGTGGACCATGT
CCTATTTTTTGGAGGGCGTTGGG

Sequence 2792

CCGCGGTGGCGGCCGAGGTACCTTCAATACCTTTAGTTGTCTCCACACACGCGTGTGTG
TGTGAAATCTTCTACAATATCTTCCCTTTTTTAGACCATGTTCACTGTCAAAAAGGTGCT
TTAAGAGCAGTCTTTGGCTGGGCACGGTGGCTCACACCCGNAATCCAGNACCCTGGGAG
GCCGAGGCAGGCGGATCACCGAGGTGAGGAGATCAAGACCATCTTGGCTAACAGGATGGT
CTTAAGGGACAGNGAAACCCTGTCTTNAACTTAAAATACAAAAAATTANNTGGGCGTGGT
GGGNACCGCNCCTGTAATCCCANCTACTCAANGAGGCTNAAGGCAGGANTAATCACTTTG
AACCTGGGAGGTAGAGGCTTGAGTTGAGCCAAGATTGCACCCACTGCACTTTCANTCCT
GGGCCGAANAANAGCCANGGACTTTCATTTTTAAAAAAAAAAAAAAAAAAAA

Sequence 2793

CCGGGCAGGGACCNCGGGATGGTGNCAACTTATGACAGGACCCATGGGCOCTCCCNATGC
ACACAGNACTNTTGAATCTNATCCTTTTCCATGGCTCTGGCTCACACTTNCACAGNATT
TACTCCTAAATATGCCCCCTGNGTTCA

Sequence 2794

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACANATTTGAATGGCTTTGA
CTTTTGGCAGCTGCACAGNGCTAGGACTGGACCATGAAATATCTNTGGGCTNTGNCAATN
ACATTTGGGTTAANCTAANCCTGATCCCATGTGTTCTGGAAGAGAAGCCCCATGACATT
CAAAGTCCTTGACAATNTGACACCAGCTTTTNTAACCNTATAAGGCC

Sequence 2795

ACTACTATAGGGCGTGCAGCGGCCGCGCGGGCAGGTACGCGGGCACACTGAGGAATTATG
ACTACTATGCAAGCCGAGTTCAGAATCTATTAATAATGCACTTGTTCTTAAGGGAAAG
TTTCATTTGGCCGGGCGCGGTGGCTCATGCCTGTGGTCCCAGCACTTTGGGAGGCCGAGG
CAGGTGGATCACTTGAGCTCAGGAGTTTGAGACCAGCCTGGGCAATATCGTGAGACCCCA
TCTCTACAAAAATACAAATTAACCTGGGCATCCTGTGCATGCGCCTGTCGTCCCAGCTACTT
GAGAGGCTGAGGCAGAGGAATCTCTTGGGCCCGGAAGGCGGAGGTTGCAGTGGGCTGGGA
TCGTGCCACTGCACTCCAGCCTGAGTGACAGGAGTTAAGCCCTGTCTCAGAAAAAAGA
CAAAAACCCAAAAAGTACCT

Sequence 2796

TACAGAAGCCGGGAGCATAAAGACGTATAAGCCTNNGGGGTTGCTCTAATGTAGGTGAGG
NTAACATNACATTANATNTGNAGTTGNCGCCTNACTTGCCCCGCTTTTTCCAGTTCGNGG
TAAACCTTGTCTNTTGTCTCAGCNTGCATTTTAATTGTAATTNNGGTCCAACNGCGCTGGAG
GAGNAGGCTGGTTTTTGCCGTTATTTGGNGCCGCTTC

Sequence 2797

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGATGATAAT
AAGATGCAATTTGAATCTTCATCATACGAAGGATACTTTCTAGCTTGTGAAAAAGAGAGA
GACCTTTTTAACTCATTTTGAAAAAGAGGATGAATTGGGGGATAGATCTATAATGTTT
ACTGTTCAAACGAAGACTAGCTATTAATAATTTTCATGCCGGGCGCAGTGGCTCACGCCTG
TAATCCCAGCCCTTTGGGAGGCTGAGGCGGGCAGATCACCAGAGGTCAGGTGTTCAAGAC
CAGCCTGACCAACATGGTGAAACCTCATCTCTACCAAAAAAAAAAAAAAAAAANGTACC
TGCCCC

Sequence 2798

CCGCGGTGGCGGCCGAGGTACTGAGCCCTTCATTCCCCAACTCAGACTCTTAGCTCTTT
TGTCAACTCTGGGCAAAGGTCAGCATTTGAATCGAGCGGCCCGCGGCAGGTACATTTTC

TABLE 1
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TCTCATCCACTTCCGATTCTCTTCATTGGCTGCAATATCTTTTTCTTCAAATCCTATTTT
GTTGGCTTCTAGGAAACCAAGCACATCTTGTTGTTTCTTCTTAATCGCTGTAGAGCCAGA
GGAAGATGCAATATATACACCGGATCACCATCCTGGGAACAGCGGCTGCGGTTGTTTGGG
TCCTGAAAAGGGCTGTGGAGCAGCTGCAGCAATGGCTGGAATCCAGCTAGGGGCTGAAAC
AACGGTTGGCAGAGAAGGGTGGGGGAAGTGGGAAAAAGGAAGAACTCGCCAGAAGCCCCG
CCTTCGNCCTTAGCAAGCTTCCACCGAGCTCTTCTAAGCGCTTGAGTTNCAGCCAAAAAC
CCCCCCCCG

Sequence 2799

AGGTACTAACCTCTTACCTTCCAAGGTGGTAGAACATGCTTGAAAAGATAGTAAGTGAAA
AGGGGTAGCCAGTGCTTTACTCACAAGACTGCTTGAACATGAGACTCAAGGAGGGACCTC
AGCAGGCCTGGGGTGTTCAGCAACTATTCTGGCCGGGGCATCTTGCAAAGGAGTTGCTG
TGACAGTAAGCTCTTCCACTTTGAGACCGTCACCTCAGCCACGGCTCCACCTGGGCTCA
GGAATGGTCAGGCAACACGTGGGGCCAGGATGGCGGTGGATGACTAAACTGCCGAAGAC
CGCGCCGCTGCGACTACCGAAGTACCTGCCCCG

Sequence 2800

CCGCGGTGGCGGCCGCCGGGCAGGTACAAGTATGCAAGTTTTCTGTAAACAGATTACTT
TCAAACAGTTGGGAGCCCCAGGGAGATAATAGAAGGTATCCTACTCAACAGCAGTATATA
GAATGCTGTAGAAGAGGAATATTGTAAGAACAAGAACTATCTCTTGAAAATAAAATAT
GATAACTGAAATATAAATTTAAATAGGATTGGAAGCTAAAGCTAGGAAATTACCCTAGAA
TGTTTTTTGAGAAATGGAAAATACCGAAGACCAAAAAAATAAAATAAACTATGCTGTGA
AAGAGAAAGATTAGCATTGAGAAGCGGGGAAGTTGGTCCTGCTCAGATGCCGGTTTTCA
GATGCCTTATTCTAAAAAATAGNGATAGAAAACAAATTTCTACAAAGCAAATTACAATA
AATTTA

Sequence 2801

CTACTTAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGACGGGTGCCTGTAG
TCCCAGCTACTTGGGAGGCTGAGGCAGGAGAACTTGTTTGAACCCGAGGTGAAAGTTGC
AGGGAGCCGAGGTTGTCCACTGCACTCCAGCCTGGGAGACAGAGCAAGACTCTGTCTCC
AAAACAAACAAACAAACAAAAAACCCCTGTAGCTTGGGATCAGCCTTCTCTTCTGTTGTT
TTTTCTTTAAAAAATAAAAAATTAATAAGGCTTCAAGTGATCCTCCCGCCATGACCTCCA
AACTGCTGGGATTGTAGGTGTGAGCACTGCACCCAGCCGTATGTTTTTTTCTACATAAA
AAACAGCACAGGATTATCTTCCAAAGCTAACAAATATGTTCAAATAACCACAACCCCAAN
TNNAAAAAATAAATNAAGTACCTGCCCGGGCGGCCCTCTAAAACTAANTGGGATCC
CCCGGGGC

Sequence 2802

NNANGNCCCNAGNGAGGGGAAAANGCGCGCCGGGCGNAANCAAGGACAGAGCNGNNNC
CCGGGGGAAAAGGANANNCNCACANACCACACAACANACGAGCCGGGAGCANAAAGN
GGAAAGCCNNGGGGGGCCNAANGAGGGAAGCCAACCCCAAAAAANGCGGGGCGCNCACN
GCCGCGNCCAGGCGGGAACCCGGCGGGCCAGCNGCAANAAAGAAAAAnnnnnnnnnnn
nnnnnnnnnnnnGNNNGCGAAAAGGGCGCNCNCCGCANCCCCGACACCNAACGCNG
NGCNCGGNCGGNCGNNGNGNGAGCGGGAANAGCNCACCCNAAGGCGGGGAA

Sequence 2803

NCCACCGCGGTGGCGGCCGTNCGGGCAGGTAATCCTTTTCAAGAGGTCATCTCCTCCACAA
GTATTTTTTGTCTTTGGCTGGTCTGGGTCCAATGCTGTTGCCATCCCAGCTTCAGAC
TGTTCTCCTTGTCTTGGAGAACTTTCTTTGGACTGTATCTTCAGAGACACTCCTGGTCAA
GGGCCCTCAGAGGACCAACGCTCTGAAACAGCGTCTTAGCTCATCGCCGAGTGTGAGC
TCTAGCTCTTCGGAGCGCTTTCTTCTCCCCCGCGTACCT

Sequence 2804

CCGCGGTGGCGGCCGAGGTACAGAGAAAATATTTTTTAAAAATCTCATCAGGCTAGGTGA
GGTGGCTCGTGTCTGTAATCCAGCACTTTGGGAGGCCACGCTGGGTAGGTTGCTTGAGT
CCAGGAGTTCAAGACCAGCCTGGCCAACATGGCAAAACACCGTCTCTACAAAAATAATAC
AAAAATTAGTGAGGCATGGTGGCACACACTTGTAGTCTCAGCTATATTACTTGAGAGGCT

TABLE 1

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GAGGTGAGAGGATCACCGTAAGCATGGGAGGCAGAAGTTGCAGTGAGCCTAGAATGCGCC
ACTGCACTCCAGCCTGGGCGATAGAGCAAGACTGTNTCAAAAAAAAAANATTTGGGGAAT
AAAGGAAAGTTCTGCCCCGGGGCGGGCCGNTTNTAGAACTTAGNNGGATCCCCCGG
GGCCTTGCAAGGAATTTNCGATATCNAAGCTTANTTCGANTCCCGTCCACCCTNGAAG
GGGGGGGGCCCCGGNTACCCCAAATTT

Sequence 2805

TAGGGCGATTGGAGCTNCCCCGGTGGCGGCCGCCGGGCATGGTACTTTTTTTTTTTT
TTTTTTTTTGGCAGCTTTTCTAAGCAAATAGATTGTCTGAATTAGTCACAGAATAATTT
TGTGAAAATTCATGTTTAAGTAGCACTACCCTTTCTTTTTTATATATTTTAAAGGNAT
TAGTTTATCTTCTTCTAAGTGGNGCAGTCACTTAATGTTTTTCATTAATCTTCGACCTGGA
GAGNGAAATACTGATATTTCTAGAAAAAAATTTACTCCTCTGATTATTTGAAATGCTGA
GGAAAATGTCCCTCCCATAGTAAACTTGTAATAAGGAACTATATCATATTCAGTAGCT
GNGTTCTGTTCCATCTTTT

Sequence 2806

CCGGGCAGGTACATTCTCTGTTCACTTAGTTCTTAAGGATATGTGTTCCATTCT
GTCGCTGGCTCAGAGTTTGCTTCACTCTCTAGACCAGAGTATAATTTCAATTGGCAGTCT
CCTATACAAATATGCATTTAAGTTTTTGACACGTACGCGGGGACTCAACAGAAATGGG
TTCCAGAAGAATAATGAAAAGTTGTGGGTAGGAAAATGAATCATTGGACTCTTCAATG
AAATGGAGTGAGCCCAGGAGAGCTCAGCCAACAGAGGCACTCTGGGAACCTGTTAGTAAA
GCCAGGCTGGCCAAATGCCATTTGATTTTGAACCTCGTAGGTCCCCACTCACCTCTGCC
AGGAGCT

Sequence 2807

AGCCTCACCCGCGGTGGCGGCCGAGGTACCCCGGGTGTTCCTTTTTGTTCAAAGTCTATT
TTTATTCCTTGATATTTTTCTTTTTTTTTTTGTGGATGGGGACTTGTGAATTTTCTA
AGGTGCTATTTAAACATGGGAGGGAGAGCGTGTGCGGGCTCCAGCCCCAGCCCCGCTGCT
CACTTTTCCCACCCCTCTNCTCCACCTGCCCTTTGGCTTCTCAGGNCCTCTGNCTCTTC
CCGACCTTCTCTTCTTCTGAAAACCCCTTCTNCCACAGCTTGACGCCCCATCCTCCC
GGGCTTCCCTNCCTAAGTCTGGTCTGCGGTCCTCTNGTCCCCCGGGNTTTCNAGAGGA
CAACTTNCCCCAAAGGCCCAAAGCAGTTTTTCCCCCCTAGGGGGGGGGGA

Sequence 2808

CCGCGGTGGCGGCCGCTCGGGCAGGGTACATGCCACCACGCCTGGCTTATTATTATTGTT
TTGTTTTGGAGACAAGAGTCTCGTTCTGTGCCCCAGGCTGGAGTGCAGTGGCACAATCTC
AGCTCACTGCAGCCTCCGCCTCCTGGATTCAAGCAATTCTCCTGCCAGAGCAGCTGGGAT
TACGGGCACGTGCCACCATGCCCGGCTAATTTTTGTATTTTAGTAGAGATAGGGTTTCA
CCATGTTGGCCAGCCTGGTCTCGAACTCCTGACCTCAAGTGATCTGCCACCTCGGCCTCC
CAAAGTGCCCCGAGGTTACAGGCATGAGCCACTGCACCCGGCCTATTATTATTAACCTAGT
GTTTGCTAAGTGCTTATAGATACGGACTTGCTTAAATCTTATAATAAGTCTGAAAGAT
GGGGTGATAACCTCATTTAAGAAATT

Sequence 2809

AGGTACTGTAAATATTACCATTATTTAAATGTTGACATTTCTGCATTAAGTAGAACTT
TCTAAATGCCTAAATACCACTCAAACATGACTTAAAAGAAATTGAATGACTCACCACTAT
GACCTTCAAGAGTCTGATTATAGAAAGGTTACTGGGGGCTGCAAGGCCCTCAATTTG
CATCATCTGTCTGCGTCTCTAATTTCAAACCTTTCAGTAATCCATCTTCACCACCGCATG
CTATGAACCTTGTTCTTGTCCAGGATACACACTGCAGCTTACGTTATTGGGAATGG
AAATTTTCTTGCTCAGGTAGAAGACATCGTGGGATCCCCGAGAGGGTCACGGCGGCCGC
T

Sequence 2810

AGGTACGCGGGGGGCTCTGAGAGGAGTCTACCTTGCTTCTTATGGGAAGGGAGACCCTA
AAAACTTTCTCCTCTTTGCTCCTTTTTCTCCCCACTCTGAGGTTTCCCAAGAGAA
CCAGATTGGCAGGGAGAAGCATTGCGGGGCAATTGTTCTCCTTGACAATGTAGCAATAA
ATAGATGCTGCCAAGGGCAGAAAATGGGGAGGTTAGCTCAGAGCAGAGTAGTCTCTAGAG

TABLE 1

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AAAGGAAGAATCCTCAACGGCACCCCTGGGGTGCTAGCTCCTTTTTAGAATGTCAGCAGAG
CTGAGATTAATATCTGGGCTTTTCCTGAACATTCTGGTTATTGAGCCCTTCCTGTTAGA
CCTACC

Sequence 2811

GGCAGGTACTTTTTTTTTTTTTTTTTTGAACATTGCCCTTTGATGTCCCCATGAGG
GCCAGGCCCAGGCAGAACCCATCCCATTTTATCCTTAAACTCANAAGGAAATTTGTCTAA
ATATTAAGGATTAATATGGGAATAAAAAATGAACCTTAAACCCTGCCACTGATACACAA
GCTGTCTNTCTTAGAGTTCAATGAACACTTCAGGAGAGTATTTCCAACAATATTAGATA
TTGGAATATCTAAATATTGTTGATTTAGATAACCACCCTAGATTTCTCACCACCCTAGAA
CATTTAGTGGGGAGACATCTTTTCTCCTTTTTCTGATAACTTGGTCAGAAAGTGATTGAC
TGTGCAAATGGTATTT

Sequence 2812

NNCGGCGGCGGGGCGGGNACGCGGGNGAGCNNTACGAGGGNCAGGAANCCCAGANGCCGC
NCGACCTGGAGNCAGCCTACAACGCNTTCAACCGCTGCCGGCANGCCCGAGCCCGGGGCA
CTAGCCCNNGCACAGAAGGGCAGAGNCNGAGGCGANGGCNCCNGNCCCNCGGCCAC
ACAGGCCTTTGGTNTTNTCACACAACNCACGGGGCGGCAGCCGCCNGAAAGNAGACNGNC
CCCGGGGGCAGAACANNGGGGGCCGGGGCCCNCCCCACAANAAGANGCNCNCCGACAAA
AAAAAAAAAAAAAAAAAGNACCNCGGCCGCNCNAGAACNAGGGGANCCC

Sequence 2813

CGGTACCCAAGCTTTTGGTTCCTTTAAGTGAGGGNTNAATTGNCGNCGNCTTTGGCCGTA
ATTCAATGGGTCAATAGCTTGGTTTCCTGTGGTGNAATTTGGTAATCCCGCTTCAACAAA
TTCCACNCAACATACGNAGCCCG

Sequence 2814

CCGGGCAGGTACGTTCTTTTNGCTTTTCCTTTTCNGTAAGATGGTCTTCAGAGCTNCTTAA
ACACATTTAGAAAAAGTTAAACCCCAAGACNCTTTGGGGATAGGTTAATTTTAAGANGC
CCAACCTTGGACTNGGATTAAAGGAANTACCTTAAAAANCCCNNGNAAAAACAATTATTTT
TTGGG

Sequence 2815

GGCGGCGGCGGAGGTACAGAGAAGCCATCANTTTAGAGGGCAGCANAAAACCAGAAGCCN
GNTTTGATCCCTNAACACCAAGANGCCTNTAACACANGNCACCAGCACCCCCAGGAAGG
CCAAGGAGTCCACAGAAAAACCTAGGGNNAGACCAA

Sequence 2816

GCGGCGGCGGAGGNACAAGNAANCNCCTTTTTTGGGGGGGGGAAAAACCCCCCNCCCCN
NNNNCNACCCAGANGAGGAGGGTTTCNGCCCCCAGGGGAACANCNCNAAAANCAGCNCG
GCCNNNGNCGGGACCAGNGCCAGGNGGACAGCCAGNGNCCNGGCCAGANGAAAGGCNGCC
GTTTTTTTTTNTTNGGGGGGGNNCGGGGGGGGGCCCCCCCCAAAAAANCAGCCACCACC
AGGNGGGGNGGGGAGGA

Sequence 2817

AGGTACCCTGAGGTGCTCCGCTGGGGACTCTGCTCATTCTGGGGGTGCAGTTGACGGCTG
GTCGTGATCTTTCCCGTAATCTGTCCCCTCTTACGGAACCTAGTCTCCCGTTCTGGCCA
TGGCCTTTCTTCTTGACACTGCTTAGGANCCCAGAAAGAAGTATTGTTATCAAATCTT
AAAGCCTTAGGAAGAAAGTCNAGGGAGTGGGAAAACCAGGCTTCTGANAAAGAATACCTG
NTTGGCCACCTGNATCTTCNAGGNCANCCACGGAANTCCCGGGCCCCCTTCCAATCAGG
NAAGGTCGGNAATCTCTGATGGTCNATCGGTTTCNATGGCCAACCTGGCCAACCAAGTTTGA
AAAAAA

Sequence 2818

CCGGGCAGGTACTGTTCTGTTGGCCGAGTGGAGACTGGTGTCTCAAACCCGGTATGGT
GGTCACCTTTGCTCCAAGTCAACGTTACAACGGAAGTAAATCTGTGAAATGCCACCCA
TTGAAAGCTTTTGAAGTGAAAGCTTCTTTCCTTGGGGACCAATGGTGGGCT

Sequence 2819

AGGTACTTTTTTTTTTTTTTTTTTGGGTTAGGATGGTCTAACCTGATGGGTTGTGT

TABLE 1
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TTACAGTGGGGTTTCCCCCAAAGGTTATCTTCCTGCTTTCCTCTGTAAATAGGGCAGTTG
CTGCAACAGATTAAATACACTCGGGCCACCTGTGGGTAGTGGGTCAAGAATTTTGACA
GAAAGGCTATAGGCTGCCGGTGGCCCCCGTGTGTTTGGGTGAGCACCCCTAGAGCTATCC
CTTTATTCACATTGACGAAGAGGTGGAATGGCTGTTCTAGGGAAGGTAGAACTAAGGCAG
TTATGAGCAGGTGTTTTAATTCCTCTACTTGTTGGACCTCCCGTGGT

Sequence 2820

AGCTTATCGATACCCGTCGACCTTCGAGGGGGGGCCCCGGTACCCAGCTTTTTGGTCCCT
TTAANTGNNGGNTAAATTGGCGCCGCTTTGGGCGNAANTCANTGGNCANTAGCTTGGTTN
CNTGGTGGTGNAANTTGGTAATCCCGNCTTCNACANTCCACACANANNACGAAGNCCGG
GGAANCNTAAAGTGGNAAANCCTGG

Sequence 2821

CGGCCGCCCGGGCAGGTACCATCTCTTGGGAAAACCATGCTACCTCTTCTCTCTGTTCTC
TATTTTGCCACTAGAGAAATAGAAAATAAGGCTGGGAGCAGTGGCTTATACCTGTAATCC
CAGCACTTTGGGAGGCTGAGGCGGGAAGAATCACCTGAGGTCAAGAGTTTNAAGACCAGC
CTTGACTAACANTGGTNGAAAACCCNCGTNTTTTTNTTAAAAAATACC

Sequence 2822

CCGCGGTGGCGGCCGAGGTACTCCAATCCGGGTGACAGAGGGAAGACTCTGTCTTAAAAA
GAAAAAAAATCAATAGAAATCGGTTTTTATTTATTTATAGTATGTGCTTTGAGTGGTTC
TCAATCAAATTGATTTTTCCCCCTCCAGGGGATATTTGAAATATCTGGAGGCATTTTTG
TTTGCCCCATCTTTGGGTATCATATTGGCATCTAGTAGGTAGAGGCCAGGGTTGTTGCTA
AGCACCTATAATCCACAGGACAGCACCCAAAAACAGTTACCCAGCCCAAAATGTCAGTA
TTGTCAAGGTTGAGAAGCCTTAATTTAGATGTAATGTTAAGAGTTCAGTAAATTGGCCAG
GCACGGTGGCTCACGCCTGTAATCTCCTAGCACTTTGGGAGGCAAAGGCAGGCAGATTGC
CTGAGCTCANGAGTTCGAGATCACCCCGGGCAACAAGGTGAAACGCTCTGTCTACTAAAA
TACAAATCC

Sequence 2823

CCGCGGTGGCGGCCGCCCGGGCNGTACTCCTCTTGCTACCACCTTTGTTGCAGAAGATG
AAGGGGAGAGGGAGCTTCTCCCTATGGCCTCATGGCTTCTTGAGACAGATCAGTCCAG
CCAGATACAGAGCAAAGCAGCTTTCATCACCGCGGGCCAGTTGCTGATGCCAGCTTTA
TGTCTAAAAAAGTGAAGCCTCAAGGGGGATGGAGGATAGCAAGAAGAATGGGTG
CCTTGGCCCCAGAGGCATTGTAGGGAGAGGAAGACAATGTATCTCATCAGGGTTCTCAAC
ATTATGAGATTATCACACATCACTATCTTTGGAGGGGCTGAGTGATTGAGTTATGGCTC
TGA CTCTCTCTGGGGGTGGAGAGTGAAAGATGACAAANAAGGCCATCTGTCCCCTAGGA
GACACAGTTTGCAGTATAAGACAGGACANAAGAGAACAGAAAAACAAATNCAACTGGAAA
AAAGGGGTGG

Sequence 2824

AGGTACCTTAGAGCAACATGCAAAGCTTCCCTNCTCAGCAATCCCAGGTTGGGGCCCCCT
GTCTTCCTATCGTCCTACCGTCACAACCACCACTGCAGGCTTCTGATGCTCTGTTTTCC
TCCTCTGTCTCAGTTCAGTTGCTCTGAGTTAGAGAGGAGCTCTCTGGGACTGGAGCAAAT
GACTGCACCGGCCCTCATGGGACTTCCATTTAGTGGATTGAGGGGAAAGCAGCACGTGT
TTTTGAGAGACCTTGGCAACGCAGGCGACCTTGACGTGACCAAAANAAGAGAGATTTGG
AATGNTTGTTTACAGCCTCCGGTCAAAAAAAA

Sequence 2825

TTAGGGCGTTTGGAGCTCCCCGCGGTGGCGGCCGCCNGTCAGGTACCANNNCTTAGCAN
GGAANNTGGACAACANAAGCTNTAAATCCTTGCATCGNCACGNTNAATTTGCACTGAC
CAATCTGTTGGCACAGTAACTGGTTATAAGCTAAATTTCTACATTTTGGCTACAAGTATN
CCAAATNCACCTTTTAAAAATCCTATGTNAGATGCCATCTGGTGTTAATGATTGACACA
CCCCTTAAATTGAAANTATTNCAAATAAATCTNACGGATTTATATANNATNATTAATGNN
TNTATTTTAAAAAGACAATCTGANAATAACACTTCCCCTAATTGTTGTCTTAATAATGAC
CAAGAGCTGNNGAAAAATNATTCACACTGNTACGTCGTTNTGTTGGTTTGCTCACGGGGG
AAGGGGGGTTG

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Sequence 2826

GCGAATTTGGAGCNAAACCNCGGNGGCGGCCGAGGTACTTCGGGGAGAGNNTNTCCTNCC
NTCATTTTGAACNCCAGCGGCCTCTTCCCCTTCNNGGGGCTGCTTCCCCTGGGAACNCTG
GCACCTTGGGCTGNNGAAGGCTCTGGAAGTCTTCAAAGCTGGAGTCTGTCTCCTAAG
AAATCTGCCAGTGCCTTAGANACAAGAAACCTGAGTGCCANAGTGAAGTGGCAGGGGCCA
AGGGAAAAAAAAAAGTTGCCCTNANCCNTNNGGGGAAAAAAAAAGNGCCCNNGGAAACCC
NGGGGGNCCCCC

Sequence 2827

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCGGAACACTTGAGGTCATGAGTCTGA
GACCAGCCTGGCCAATACGGAAAAGCCCCGTCTCTAACAAAAATACAAAAATACAAAAAT
TGGGTGTGGTGGTGTGCACCTGTAGTCCCAGCTACTCAGAAGGCTGAAGTAGGAGAATCG
CTTGAACCTGGGAGGCAGAGATTGCACCACTGCACTCCAGCCTGGGTGACAGAGAGACAC
TCCATCTCAAAAAAGAAAAGAAAAGAAAAGAAAAGAAAAGAAAATGTTGAGGCAAT
GAATATACAAACACATTTTAGATTAGCATTTGAATTAGTAACTGCATAAAAAAGATCCA
ACATGAGCTGACATCATCCAATCCATTGAGGGCCCAAATAGAGCAAAAAGGCAGAGGAAG
AGCAAAATC

Sequence 2828

CCGCGGTGGCGGCCGAGGTACAGAAAGAAGAGTATCCATTTCAACTACTAGGTAACTGC
CTTTGATGAGCTTGATTTTACCTGGGTCACTAATTCCACAGAACCAATGTAGGTGTCTGG
GCGGAGCAAAATATGCTCCAATTGTGTTTTCTTTGATAGATTCTTTCAACAGACAGTCT
TTTCTTAGCATCTTCATTTTTCTTTATTTTGTGACTTGACATTTTCATTTACAGGCTG
CAATGGTGACACTTCCATGGTGACGGTCGTGAAGGGGCTCAAGAACCCTGAAAGCGACTA
AACAGGCAGGACCCACGAGACCACCCCGACCAAGCCGNTTCTCCACAGACGCGCGTCC
CCCGCGTACCCGCCCG

Sequence 2829

CCGCGGTGGCGGCCGAGGTACTTTAANTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TT
TTTTTTTTTTTTTTTTTTTTNNGGNNGNNNANNNTNTTTTTAAAAANGGNAAAAAAAAA
ANNGGGGGGNGGNNNNNGNNNAAAANNANNNNGNNNNGGGGNNAANCCCCCNCCNNNNNG
GGNAANCCCCNNNNNAANNNNNNNNTTTTNGNGGNNNNNCCCNTTNTNAAANAANCGGGG
TNAAAAAAAAAAAAAATTTTNGGGGNATTTTTNNNGNNNCCCCCTNANCNNGGGGGG
GNNTNTTNTCTNTTTTANACCCCCGGGGGGG

Sequence 2830

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTGTTTTGT
TTTGGTTTTTTTTTTTGGCTTGACTCAGGATTTAAAAACTGGAACGGTGAAGGTGACAG
CAGTCGGTTGGAGCGAGCATCCCCCAAAGTTCACAATGTGGCCGAGGACTTTGATTGCAC
ATTGTTGTTTTTTAATAGTCATTCCAAATATGAGATGCATTGTTACAGGAAGTCCCTTG
CCATCCTAAAAGCCACCCCACTTNTNTNTAAGGAGAATGGCCCATTCNTTCCAAGTTNC
CNNANGGGGANAAAAANANCNNTTNTTTTNGGNAAATTTTTAAANCAAAATTTTTTAAN
CCCCCCCCCAAAACCTTTTNTTTTNGNNAANAAAAANAAAAAAATTTTCCCCCC
CCNCTTTTTTTTTTTTTTTCACNCCAAAAA

Sequence 2831

CCGCGGTGGCGGCCGATGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTAACCCTTTGACTNTTTTTTAANGCCNCGGNGGATNTC
NTTGCCCANCTCCCANNAATGTTTGCCTTNTAANTCTGTTCCACTTTTAGGNGGNAGCC
ACCAGGCCTTANCCATCCCGGGTACCTNGGCCGTTTTTAAANNAGGGGNATCCCCGGGN
TNNANGAATTTNAAANTNAAAGCTTNNNGAAACCNNCCCNNTNGNGGGGGGGGGCC
CGGGCNNNAATTTTTNTTTNTTNAANANGGGNAAAAANGGNCCCCCTTGGGGNNA
AAAAAANGNAAAAANTTTTTTTTTNTNGGNAAAAAATTTTTTTTCCNNAAAAAAT
NNCAAAAAAAAAAANAANGGGNGGGAAAAA

Sequence 2832

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CCGGGCAGGTACAAAGATTCTCACTGCGTGCTAAGAAAACAGATCCAGGCCGGGCACGG
GGGCTCACACCTATNANCCCAGCACTTTGGAAGGCTGAGGCGGGTGAATCACCTGAGATC
AGGAGTGCGAGACCAGCCTGGCCAACATGGCAAAACCCTGTCTCTACTAAAAACACAAAA
ATTTGCCGGGCATGGTGGCAGATGCCTGTAATCCCAGCTACTTGAGAGGCCAAGGCAAGG
AGAAANTTGCTTTGAACCTGGGGAAGGCCGAANGNTTGAANTGAGCTTGAAGATTCCGGC
AACNAACTTGCACTTTCCAANNCCNTNGGGNTGACNAGGANGATAAGGACCTTCCNTTCT
NCAAAAAAAAAAAAAAAAAAGGGANAAAAAAAAAAAAAAAAAGGGNTCCCTTTTNGGCCCGGTTT
TTTANAACTTAAGTGGAATCCCCCNGGNCCTTGNGNGGGAATTCGNNTNTNNAA
AGCTTTTTTCGAATCCCCGCCCANCCNTNNGNGGGGGGGG

Sequence 2833

CTAATTGGAGCTCCCCGCGGTGGCGGCCGGGCAAGGTACTTTCTTTTTTTTTTTTTTTG
AGATGAAGTTTGTCTTGTGCCCAGGATGGAGTGCAATGGTGCAATCTCAGCTCACTG
CAACCTCCGCCTCCTGGGTTCAAGTGATTCTCCTGCCTCATCCTTCTAGTAGCTGGGAT
TACAGGTGCCACCACACACCCAGCTAATTTTTGTATTTTAAGTAGAGAATGGGGTTC
ACCATGTTNGGCCAGGCTGGTTTNAACCTCCTGACCTTAAGGNGAANCCCCCTTGCCTT
NGGCCNCCAAAAAGGGNTNGGNAATNANNAGGGGGGNNACNCNCCCCCTTNNCNCNNANAA
AAAGGGGGNTTTTTTTTNTNTGGGGGGGGGGAANATTTTNNAGGGGGGGNGCCCCC
NNCCCTNANAAAAAAAAANANCCCCCCCCCGNGGGGANNAANNNNTTNTATAAA
ANANTTTTTCCCCCCCCCCCCNGGGGGGGGGGGCCCCCCCCCANCTTTTTTTTTTTTTN
TAGNAAGNGNNNCAANCCCCCNAAAA

Sequence 2834

GGGGNAAACCCCGNGGCGGCCGCCCGGTTTGGAAACNGGGTTNAAACCCCGGNTTTNA
ACCNCANAACCGCAAGANAACGGGNGNAAAAAAGGGAAACANANCAGCNGTCCAAAGAA
AACAAAANGNGGCAAAAC

Sequence 2835

GGTGGCGGCCGAGGTACTGATCATGGAACCTCGGGGAGGAAATGATGTTTTCTTCTAC
CCATCTTATGTTTCATTGGCTGGGGCTCCTGGAACAGAAGACAGATTTACAAAAGAGAAAG
GCACACAAATTTATGTAATATAAGTTTTACATGACATGGGAGCCTTTATAAGGAAATGAC
CCAAGGAAATGGTTAAACCTGAGTGGTTTTGNGTTAGGTTTGATGAGCAATGAAAAGCTA
TGGAGAACTATGATAGGAGGAGTGTGAGCTAAACGCAATGAACTGGGGGAAACT

Sequence 2836

TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTT
TTTTTTTTCTCAAACGGCCTTCCTTAGTCCTGTAAAACCTGGAATGCACATAGTCCTGT
AATGGCCATCCAGAAGTGAATCTACATGATTATTCAAATCAAATACCTAANAAAAAAA
ATCACTTGAAGTTNTGCAACTTCCCAAATGCAATTCCTGANAAAGAACTTGACTGAGC
CAGTTCAACTTTCTGTATTGGATTANAAATCCTATCTTGCTGGCTGGTCTGTANATTGGG
TTGCTCTTGAGTCAAAATGANCTTTTTTTAAAGTTAAGCCNCTTTTGCCCNNTNGGGGG
GGGGCCCCNCTNGGGGGGGGNNAAAAAATAATTTNNCCCGGGGTTTTNTTTTTTTNCCC
CCNAAAAANCTNTTTTTTTTTCNAANCCCCCNCNAAAAAANNGGNCCCCCCCCCCTNG
NNGGGGGGGGGGGGGGGTNTTTTTNTCCNCCCCCCCCCNCAAAAA

Sequence 2837

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTGGGTTTTTAGTAGAGACAGGGTTTC
ACCATGTTGGTCAGGCTGGTCTTGACCTCATGATCCACCGGCTTCGGCCTCC
TGAAGTGCTAGGATTACAGGTGTGAGCCACTGCGCCAGCCCTGAGAAATAGTTCTTCTA
ATTGTCATCCAGTTTTTCATCTGAGTCCTGTTGTTCTTTGGATATGTGCCCTCCAGAGCA
CAGCAGGGGTTGTTCAAGTCTCCANAAAAGCAGCTCTTGTTCTCCTCATGTGGTGGGA
GTGGAGTCAGAGCGTGGCTCAGGCCCCACATTCTCAGCTGTTTGGATCTGGGGACTCGAA
GTTTCTGGTGGTTACTTCTGAAAGTCTTTTCCAGGATAATTATTCTTGCTCGGTTTCTCT
GCATCTCTGACAGGCTGGTTNCCTGCTTCCCCGCTT

Sequence 2838

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTT

TABLE 1

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TTCTTTTTTCTCTGTGGAAAAAGAAAGAATTTGACTTTATTTAGAAAGTCTACAAAATA
CAGAAGACGATAACTCGCTTGCTGTAAGTCAGGAAATAAATAAATTCTAGGAGCCGGGCA
ATATTTTTTAACTTTTTTTTTGGAGACAGGAGTTTGCTATGTTGCCAGGCTGGAGTGCAGT
GGTGCGATCTCAGCTCACTACAACCTCTGCCTTCTGGGCTTAAGTGATCCTCCTGCCTCA
GCCTCCAAGTAGCTGGGACTACAGGCATGAGCCACCATGCATGGCTAATTTTTGTATTT
TTTGTAGAGACGGGGTTTCACCATGTTGTCCAGGCTGGTCTCAA

Sequence 2839

AGGTACTTTTTTCTTTTTTTTTTTTTTTGGAGACAGGGTGTTTATCTGTCACCCAGG
CTAGAGTGCAGTGGCGGGATTACTGCTCACTGCAACCTCGACCTCCTGGGCTCAAGTGAT
CCTCCAGCTCAGCCTTCAAGAGTAGCTGGGACTGCAGACCTGCACCACCAGTCCAGCT
GCCCCGTTAATTTTTTCTGTGCGTTTGAAGAGGGGAGAAGGTCTCACTATGTTGCCAG
GCTTGTCTCAAACCTCCCGGGCTCAAGCAATCCTCCCACTGTTGGCGTCCCAAAGTGCTTG
GGGTACAAGGTGTGAGCCACCACCACTGGGGCTCTGCTCTGCCTTTCTGAGTTTTGG
GTTTTCTGCTTATGGNGGGGGAGCTTTGTTCCGTTCTTCCCCACAAAGAACCAGGGAT
GTGGCACAAGCTCCCTGCCGTTTTTCTTTAACTTCAAGTTGGG

Sequence 2840

CCGGGCAGGTACAACCTGGAAACAGCCACCGGAGAGAGAACTGTCTCGCCTTCGCCGGCTT
TACCAGGGTCATCTCCAAGAAGAGAGTGGCCCCCACCTGAGTCAATGCCAAGATGCC
CCTAGAACACCAGCGGAAGCCTCCTCCACTGGGCAGACAGGCCCTCAGAGTGCTCTGTAG
GAGCTGTAGACTGGGAAGAGAGGCCAGGCGTGGTGGCTCACTCCTGTAATCCCAGCACTT
TGGGAAAGCCAAGGTGGGCCTTGATCACTTTGANTCCCAAGGAAGTTTTGAGACCAGCC
TTNGGCACCATGGTGAAAACCTTTGTCTTTACCAAAAAATACAAAAATTTAGCTGGGTGT
GGTGGTGCACACCTGTAGTCTTAACTATTGGGGGAGGCTAAGGTAGGGATTCACTTTGAT
TCCCAAGGAGGCGGAGGGTTTTGCANTTGAGTTTGGCANTTCAACACCCCTTGCAANTNC
AGCCTTGGGGTGGACAAGCTTAAACCCCTTNTTTTCAAAAAAAAAA

Sequence 2841

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCATGTCAATGGAGTAAT
GCTCCCAGGAGAGTTATGGCTGCTCTGCTATGTCATGCAGGTTGTTAGGGAAGTAGGGGA
AAGCTAGAAGTTACAGGCCTTACCCAGCTCCCATGCAACCCAAAAGGCCAGTCTCACTCC
CACCGTGCCCCACCCTGACAGCACCAAGTTTGTTCAGGCAGTGAGTGAGCAGGGCTGA
GAACTTGTCCAGGCTACCAGCCTGCCAGCTGAGAAAGAAAGCATGGCTTTTGATCTTT
TTGCCTGTTGAGTCTGCGCACTGGATTTATGCCCTCCCTCGAGTTTGGCCGGGAGATT
ACGTTTTGGTTCAAGTGGTTACCAAAGTTTACTTGGGGAGGTTTCCTTTCTTTGGGTC
TT

Sequence 2842

CNAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGGTACTTTTTTTTTTTTTTTT
TTTTGTATTTTTAGTAGAGACAGGGTTTCATCATGTTGGCCAGGCTGGTCTCGAATTCCT
GACCTCAGGTGATCCGCCTGCCTGACCTTCAAAGTGCTGAAATTACAGGCATGAGCCA
CGATGCCCAGCCTGAGGAACAGATTTCTATATGGCAAATAATAAAGGCCAAATAAAATTA
ATGCTAAAATAGAATGAGGAAAAGTATTNTTTNTTACCAGAATGGTTGTNANCANAAAT
GNTTTGCACCAGGGTGGNNTTNAAAAAACCCCNCTTNNATTTTGGGTTNTNCCTGGG
GGGNTNTNGGNNCATNAAANACCNTTTTANNNTNTTTTTTNNNNNAAAAAAANTTTT

Sequence 2843

AGGTACTTTAACTTCTTTTTTTTTTTTTTTGAGATGAGTTTTGCTCTTGTTGCCAGACT
GGAGTGCAATGGCGCAATCTCGGCTCACAAACCTCTGCCACCGGGTTCAAGCGATT
TCCTGCCTCGGCCTCCTGAGTAGCTGGGATTACAGGCATGCATCACTATGCCAGCTAAG
TTTGATTTTTAGTAGAGACGGGGTTTCTCCATGTTGGTCAGGTTGGTNTCGAACTCCCG
ACCTCAGGCGATCTGCCCGCTCGGCCTCCCAAAGNGCTGGGATTACAAGTATGAGCCAC
CGCACCCAGCCTAAGATCCAAGATTCTTATGTTTTCTCTCCTTGCCTTTTGGAACCTGCC
CGGGGCGTGAGCGGCCCGCGGGCCAGGTACCAACNAGAAACNCAACACCTTGNCAGT
NTNTCNAGGCACCNTTCCAAAAACCAAATTTTGGANAAGGTGAAACNTTAACTTNATA

TABLE 1
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TNGGCTTAAATTTTAA

Sequence 2844

ACCGCGGTGGCGGCCGAGGTACTTTTTNTNTTTATTTTTTTATTATTTTTNTGGG
GACGGAGNGNCCCTCTTGNTGCCAGGCTGGAGCGCNATGGCGTGATCTTGGCTCACTGC
AGCCTTCGNTNCCGGGTATCAAGTGATTCTCCTGCCTCAGCCTCCCNAGTAGCTGGGAT
TACAGGCATGCNTNACCATGCCAGCTAATTTGTATTTTTTAGTANCAAAACCGGGGG
TTTACCCATATTGGGTCAAGCCTGGTCTCGAACTCCAGACCTCAAGGGTGGATCCCGC
CCACCCTCGGCCTTTCNCNAAACCTGCTGGGGAATTACCAAGGCCGTTNAAGNCCAACCC
GNCGCCCTNGGCCANGGGGGACCTNATACTTCTTTTTTAAAAAAAAGACATTTTGTN
GGGGGGCNTCACCACCCNTTATATTTNAAAAATTAGGTTNCCTTGCC

Sequence 2845

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTCTCATCTTCTTTGATAATGN
GNGAAGCCAAGGATAGGCAGGAACCCCAAGTTCNTNTNTCCTGGGATTGTACAAAATT
CCCCCTNTCCCATCGCATCTATTTTTGTTTGTNTTTTTNTTCCCAAAGAGGGAAAA
ATACCATGGGCTTANAGGAATCATCGCTCACTGNGGGAACCTTGCCCCCTCCCAAGCC
ACCCCACTGNGCCATAAACGTGCTGCCTGTAACCAATTGTTCTGTTGAATAACAATGC
GAGCTGAGGGGCTTTTTNTGCCTGAGCTGCAATANATTAGGCTGCTCCCTTTTATGTN
GCAANACATTACCCAAAAGC

Sequence 2846

CCGCGGTGGCGGCCGCCGAGCAGGTACCTCAGAATGTAAGTGTATGTGGAGGTCTTTAA
AGCAATGATTAAGTTAAAATAAGGCTATTAGAGTGGGGCCCTAACTCTAAATGACTGGAT
TTATATGAAGGAGCTAGAAGAAGGACAGACACACCAGGGTCCTGTGTGCACAGAGGGACA
ACCATGTGAAGAGGCAGCAAGAGGCCAACTGCAAGCCGAAGAGAGAGGTCTCAGGGGAGA
CCAACCCTGCCAGCACTTTGATCTCAGGCTTCCAGCCCCAGACCAGTGATAAAATAAT
TTCTGCTGTTTAAGCCACCCTGTCTGTGGCATTGTTCTAGTGCCCTAGCAA

Sequence 2847

CCNNGGGCGGCCGAGGTACCATNANGCTTGAGGGGCTGAAGCATGGTTTGTCCANAACC
CCAACCACAGGTCTATCGNNCTCTTCTGNCACCTTTTTNCTCTTTTTCTTCTNCCC
TTGCACCTGAGGNCCTGGAAGGCCTTGATGAGGCCAGCAAACAGGCATTCTCACAGCTG
GGTTTATAGTCTTTGGGCCCTTACTCAGTATCCTGGGAACCCTGGGCCAGGAAGTTAAC
AGTGGTCAATCANAAANTNCTGAANAAAATCCCCCTCCCCCTG

Sequence 2848

CCCCCGNGCNGGNCANNTTTTGGGCNNTTTTGGGTTTTCAGNANGGTTNGTGGAGNA
TCCCCNGNGGTTTTTNNNAAACCCCCCNNAACANAGACCAAANGGGGGGNGNGNAG
GGGGGNGGGGNCNNTNAGAGAGNGGGGGCGGGGGCAGCGGGGGGNAAGNNGGNNNNNA
GGGGANGGGGAGGGGNCNNCCCCANACNNGGAGGNGGAAGGGGAAAGAACGGCNAGGGG
NAAAGGCCGGGGGGCCACCNAGCNCNGGGGGNNCNACNGANGGGGGAAGGAACGGGGGAA
ACCAAAGGCCCNCCCCACCCAANAANGGCCNNGGAAAAACCCACANNNGGGNAAGGA
NAAAGGGGCCNANGGCGAAGGANGGCNCCCAAGCAGGAGGCGGGNNGGGGCCGCAACNG
CCCCNAAAAAANGCCCCGGGNNNACCCCAAGGGGGGANGGGGGNCANAAAGNNGGGGG
GGAAGGAACNGGGCCNAGGGNGGCCCCCNNGNANGNGNNNGGCGGAAANCCANGC
GCCNNGGGGGNNANCCAAGGGGGNNGGA

Sequence 2849

GAGATGCAGTCGATTNCATACCTANTGGGTCCCANTCCTNNNTNNGGNCNGTTGNGAAGC
CGGATAGTGACTGAGATCACTGGGTAGACCTTGTCACCTTGGCATTCTTGTCTGCCAAG
GTCCATGGCCCATGGGGATGGGGACAATTTAGTGGG

Sequence 2850

GGCAGGAACTNTTCTTTNNTCTTTTTNTNAAAGTNAGNGGTAATTTAAAAATCTGAAAT
ATAGGCTGGGCGTGGNGGCTTACGCCTGNAATCCAGCACTTTGGGAGGCTGAAAGTTGG
GGCNGGATTCATCTGAGCTCGGGAGTTCAGGGACCAGCCTGACCAACATAGAGAAACCCC
GNCTCTACTAAAAATACAAAAATTAGCCANGGCGTGGTGNGCACCATGCCTGTAATCCCA

TABLE 1
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GCTGTTTCAGGGAAGGCCCNANGCCANGANAAATTTGCNTGGAACCCCGGGGAGGGCCGG
GAANGTTTGTGGATGGAGCCCCGAAGATCANCCAATTTGNNNANCTNNCAAACCTTTTGG
GNTTGAACAAAGAAGCCNAAAAANTTCCCAATTCTTTCATNAAAATACAANGAAAACNT
TANANAAAAATTTTTTAAAAATTAATGGGGACCCCNNTGGGAAANGAGGCCCNNTAAAAA
AAAAAAAAAA

Sequence 2851

CNANCGGAAGGGGCCCCNNGGGGGGGGGGANAAGGGCAAACCCNNGNCTNAGCAACCAC
ANGGGGGGGCCGGAGCCNNGGGGGGCCAGGACCAGGGGAGAGGGAAGCCCCAGCCCNAG
GCGNNCGCACCACNCCNAGCACCAGCGCACCAANACNGCAGACGAGGAAGGAAGCACAAG
CNCCCCACNNNACAAAGGGGAAACCGAGGCGCGGGNAGCGCGGNCCCCGGGGACGGCCGCA
CAAGAACNAGGGGGACCCCCCGGGCGGCAGGAGNGCCGNNAGAAGCCAAAACGAANCC
GGCGAACNNGGGAGGGGGGG

Sequence 2852

AGGTACGCGGGATGCGCAGTCGTGAGTCCTCTTGTCTTGAGCGTCAACCTTCTTTCCC
TGAAGTGGCTGGGGTTCTGTTTCCTTCTTTGATTGACAACTTGTGTTAACCCCTCGCACA
TCTCTGGGCCAATTTTTGCTTGAATATGGCAGCTCCCGAGCAGCCGCTTGCGATATCAAG
GGGATGCACGAGCTCCTCCTCGCTTTCGCCCTCGGGGCGACCGAACCTTCTGGTCAG
GCACCTGCCGGCTGAGCTTACTGCTGAGGAGAAAGAGGACTTGCCCGAAGTACCTGCCCG
GGCGGCCGCTCTAGAACTAG

Sequence 2853

CGGNGCGGCCCGCCCGGGNATGGTACCCTCTGTACGGCTTCCTTTNCTGGAAGGGA
ATTTCCCAACCCCGGGTGAGGCAATGCCCCGCCCTGCTCCGTGGGCTGCACCTGCTGTCT
GTCAAGCCCCAATGAGATGAACCCCTGTACGCGGGGGCCTGGGATCTCAAATGGCGGCC
CGTGCGGAAACAGCGTNTGGGAGCANNCATGTTGCCTNCTGAACAAAGCCGTTGAAGATG
AAGATGGGCAAAATCGCCCCATACGGAACAAGCGCANCTNNGGAGCCCGATACCTGGC
NNGCGAACACCAACGGGAGAATTCGCCAATATGGATGTGACAGCGGTTCCCATTAAG
CGGTGATAGGGATTTTT

Sequence 2854

CCGGGCAGGTACGCGGGGTGGGCATTCTGGGTAACAGAGCTATTTACTTCCTGCGGGTGC
ACAGGCTGTGGTCGTCTATCTCCCTGTTGTTCTTCCCATCGGACGAAGATGGCCCTGGAG
ACGGTGCCGAAGGACCTGCNNGCATCTGCGGGCCTGTTTGCTTGTGTTGCGGTGGTCAAG
ACTAGTACCACCAGNTTTAGAATATGATGGCTTGTNGACAACATGTTGATGTCATATGNT
ATCAAATCGAAACGGNGTCANCTCCGAAGAAGGATGGGTTATTATTGACTTGACCTTA
GCCTNTTCGCTTTTGCATGGGGATANCCATTTNGCTCATTNATGAAGTTNCCATGTANTG
TACAGGCCTTGGGGNTCNTTCAAAGGTNTNNAANCTGCAGNTCCAGTTAAACCTTT

Sequence 2855

CTTTCATGTGATCTTTGTGGCAGTGGGACAGGAAGTAGGCGCGGGCCCTCAGGTTCTCCC
TATCGAAGCGGTCTATGGAGATAGTTGGATACTCGGCCATCTGCCCTCGAAAGAACTCA
TAGCGCCGTCGATCCCAGAGTCCGGGACCCCAAACCGCAGCTGAAGCCAAGGCCAGCCC
TGACNCGCCCCCGGTACCTCGGCCGCTCTAGAACTAGTGGGATTCCCCCGGGCTGCAGG
GAATTNGATATCAAGCTTATCTGATACCGACCGACCTTCNAGGGGGGGGGCCCGTTACCC
AAGCTTTTTTGTTCCTTATAGTGGAGGGTTTAAATTTGCGCCGCTTGGGC

Sequence 2856

GGGCGATTTGGAGCAAACCCCGGGGGCGGCCGCCCGGNTTGGTACCAAAANTNCAAACNA
CCANTTTNGAANCCGGCGNNGACGNNGCGGNCCNAGCTACTCTGGAGGCTGAGGNGGGA
GGANCGCTNAGNCTGGGAGGCAGAAGTTGCAGNAAGCCGAGATCATGCCACTGCACAAG
CTAGGTGACAGAATGAGACTCTGTCTCAAAAATAATTAAGCCTCTGCCCCAACTCG
TTAAAGATTTTATAACCACAACCTGCTGNTTCTGNGNAGATGCATCTGCATGCCAGGAG
CAGTAAATGCAATAAAANCATTTGGNTATACTTTGAACACAAAATAAACGGGTGAGGCTT
TACTTTTCAAAAAAAAAAAAAAAAAAAGGGNCCTCGGCCGCTCTAAACTAGGGGGANCC
CCCCGGGCCCGCANGGAAATCGATA

TABLE 1

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Sequence 2857

ACATTAATTTGCGTTTGCGCTCACCTGCCCCGCTTTTCCAGTCCGGGGAAACCTTGNCGTG
CCAGCTTGCAATTAATTGNAATTCGNGCCCAACCGCTGCNGTNGGAGAGGCCGGCTNTTG
CCGTATTTGGGGCGCCTCTTCNCGCTTTNCTCGGCTTCACTTGACTC

Sequence 2858

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTGTCTCAGCTTGGG
CTTCTTCCTCCTNCATCACCTGAAACACTGGACCTGGGGGTAGCCCCGCCAGCCCTCA
GTCACCCCACTTCCCAGTTGCACTTGTAGCTAGAAGTCTCTAAGCCTATACGTTTC
TGTGGAGTAAATATTGGGATTGGGGGAAAGAGGGAGCAACGGCCCATAGCCTTGGGGTT
GGACATCTCTAGTGTAGCTGCCACATTGATTTTTCTATAATCACTTGGGGTTTGTACCTG
CCCGGACACATCCAGTAGGCTAAGGGGATGCTTTCCTTTTCTGGGGTTTTTGGGGGGTT
TTTTGGAGCGGGGAGAGGGATGAANGAGGTGCTCCCCTTAATTTCTTTATTGAGAATGAT
GCCGTGGATACTTGAATTTAAGCANTTGTACATGGGCAGTGTCTACCTGGGG

Sequence 2859

AGGGCGATTTGGAGCTCCCCGCGGTGGCGGCCGCGGCANNTACTTTGCGGTTTTTGGGACT
TGATTTTNGCAGAGGGATCGGGCACTGAAGGTGCAGTTCTCAAAATCACACCTGNAGGCT
GGCTCCTCGCTGTGGGTATCCAGGTGCTTCTGGAGGTCAATAAGATTCTTGCAGCTGTAG
TCACAACAGTCACATTTAAAGGGCCGGTCTCACTGTGACGAAAGCGCATGTGGTTGCGG
AGGGAGGAAGGCAGCGGGCAGGTGATGTACACAGAGGGCACTTATAGTGATTCACATGG
TTGCGCA

Sequence 2860

ATGCGTTGCNGCTCACTGCCCCGCTTTCCAGTTCGTGGAAAACNCTGTTTCGTGCCAGCCT
GCATTTAATGGAAATCGGCCAAACCGCCNCCGGGGGAGGAGGGCCGGTTTTGCGTATTT
GGGGNCGCTTCTTCCCGCTTCTTCGCTCAACTGGAATTCGCTTGCAGCTNCGGGTTCG
NTTCCGGGCTTGCTGGGCCGAGGCCGGGTATTTANCCTTCACTTCAAAAG

Sequence 2861

CCCTAGGGCGTTTTGGAGCTNCCCCCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTN
CCCGGAGNTTTNTAANAAGATTTATTTAGCAAAAATACATATAGCCATTATTGCAAGACT
TAAATGAGATGNTAAATGTTCAACCCAATTTTCTTTCCTGGATAAGTTTTTCTTTCATAT
CCCTGTCAGTTTTGAAAACATAATACCAGAAGAAGGGGGGCCCAATTCCACAGAGAGCTC
CCAAGAATGAGTTTCTGGGAGTGAGTCTGAAGTTGAGATAAACCTTTGCTGATCTTGCTT
ACGTTCAATGCATCTGGGCAGCGTCTTTGATGAGCCCTGGCGGTTAGGCTGGTGGCACTG
AAGCAGGCCTCCAGGGTCTCCTGTTAAGCAGGATTTAAGGCCAACCTGC

Sequence 2862

CATCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACTTTGGGA
GGCTGACGCAGGAGGACCGCTTGAGCTCAGGAGTTCAAGACCAGCCTGAGCACCATAGTG
AGACCTCATCTCTACTAAAAAATAAAATACCAGGCATGGTAGCATGTGCCTGTAG
TCCCAGCTACTCTAGTCCCAGCTACTTGGGAGGCTGAGGTGAGAGGATCACTTGAGCCCA
GGAGATCGAGGCTGCAGTGAGCCATTATCACGCCACTGCACTCCAGCCTGGGCAACTAAG
CAAGACCCTGTCTCAAAAAAATTTTAAAAAATTTAAAAAATAAGAAAAATCCAAGCTAGGT
TGAAATCTGAATGTTGAGCAGNTCAGTGAGGCACAACTTAGCTTAAGAAAGTCAACCTT
GCCCACTTGCCATTTTGAAGGTTATTACTAGCCAAAATTACN

Sequence 2863

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAAAATTAGCAAGGAGA
CATTTTCTGCATTGTGAGAAATCAACATAGACACCTTAAAGACCCCTTTGAGAGTGTGGC
TTTTTGAATTTTTCAGATTTTGTCTAGTGACCTGCTAACACTTACGTGAGAGGCTCCAGG
TGTAATAGAAATCTAATGGCAGAATCTGTAAGTGTAACAAGCATCTTAGGAGTGAGAGA
TCAAGACCACAAAATGTCCAGAGCTATGACCACAGCTATACCTACCCATAAAATACGATA
CTGGAGTAGGGTATTTTTGTCTTTTTTCTTACCTAAGAGCTAGCTAATCAGGACAGGTGA
TGGCAGGTTCTGGAGCTCTACCAGGGCAGGTCTATTTTCTTTTTT

Sequence 2864

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Sequence 2865

Sequence 2866

Sequence 2867

.....TGTCCCTT

Sequence 2868

Sequence 2869

GCGAATTGNAGCTCCCCGCGGTGGCGGCCGAGGTCTAATTTGAATTTGTAATGAGTCTGA
 TGGTATATTTCAATTTTTGCTTTGAGGGACTGGCTGCTACATTGCAGAAATATCTTATAT
 CCCTGACTGCTTCCACTAAATGTCAGTGGTGACCCCAATCCAATATTATGACAACTGAA
 CATGCTTATGCATCCCTCATGCCTTTATTTTTATTTGGGAAATCTTTCAGCTTCAGTT
 TTTGCTGATATTTATGTGATTCTTTGTTCTGCAATTCAAATTTCTGGGAGCCAAACAGTC
 TCCTTGGTTCAGATTACTGTTTTTGACTAGAGCTTCTCGCTTCAGATTCTGTCATAAGA
 TTATGGCTTAACCTATGGTTGTCTTTGATTTGGTGCCATATGAAATAAAACATTATTTT
 CTATGGCTATGTATTAAGAATTTGTGCAATTCGTTTTCTTAGAAGGCTGAGGGTGTG
 TTGTCAGACACCATGACTGATGTGACAGGTGTATTTATTATGC

TABLE 1

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Sequence 2870

ATAGGGCGAATTGGACTCCCCGCGGTGGCGGCCGAGTCCTACCCTTTACTTTTTCCCCAA
GACCATCTCAGGGTGGAGCATTCTGTCTAAGAGAAGAAAGATAAGGAGGCTCCCACCCAC
CTCTCCAAGAGCAGACATTAAACATCTTTGTGCTTTGAAGAGAGTGAATTTGGATAGTC
TTGTGATTCTCAAGACTAACTTCCAGAATTATACTTTAACCCCTTCCAGATATGGTCCGC
CTTTGGCATTGTGTGTACCTGTGATGGGGCGTGTGGTTTCCGGTTGTCTCACCTTTAATT
GTCAACCTCCAGTGTATGACTCTAGAAATATGAGGAAAAGCTTTTCAGTTTTTAAAATTG
CCATTTAAATTTAGTCTATTA AAAACAAACCTAGAGGTCTTGGGTTGCAGTTGATTCAG
AGTATATTAATTTAGTGGGTCCCNAAGTATTACATNTATTTATATTCTGGAATGAAAAG
G

Sequence 2871

CCGCGGTGGCGGCCGAGGTA CTCTTCGTAAACCATGGAGAGCCAGCCCAATGCACAGCA
GTGGATATCATCTTTCTCAGAGTCCAGTATCACAGAATCACGACTTTGTCCAGCTGCAGG
TGCCTGCAGGTCACACTGGCTAACTACTTCTGTGATGGGCTCTTCTTTCTGAGGTTCTGC
CAACTTGTCTACTACATAGGGTTGATCATCCTGTT CAGGAAATATTTCTTTCATTGCTC
TGAGCTTAATATTGTAATTTGATTTGATCTGCTGGGTCTTTGGAGTCAGGACTGGTTT
ATCAGCAGTTTGATCTTCTGAGGTCTGGTATGTAGTTTGCTGGCCACAGAACCTTCAG
TGTATTCACAGCCTCAATGCCATAAGGAAACTCTTT

TABLE 1A

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Sequence 2872

CCCTTAGCGTGGTCGCGGCCGANGTACAAGGTGAACCTGAACATTCTGTGTCAGAAAGC
TAANGAAGTGCCAGAGAATGATAAATCAATCAAAAGAACAAGCGACAAGCATGAAAGG
CCAAATATGAGATAATTTGGGAATTTAAAAATGAACATAATGGATCCGTAACACATTGA
ATTTTTTAAATTTCTTGAGCCTGTAATGATACTGGAGGAAGGAGTCTTTTGTTAC

Sequence 2873

CCCTTTGAGCGGCCGCCGGGCAGGTACGCGGGGTGGGGATATTTTGTCTCACAGATTG
TAAGAAAGGGGTATGGAATCCCCAGGCAACAGTGTGCTCCTCAGCTTGCTGAAACAGAC
CAAAGACTATGTTCTAATCAAACCTTCCAGGAATCTCATGGAAATTTCAATTAATGCCTC
TCCAGGCACTTTTCTGAAAGCCCCACGTTAGGGATGTCTTGGCTAAGACATCTCTCATG
GTATCCACAGCAACCCCTGATGAAGCTCATTTCTGGAGAAGAAGAAAGTCTCTCAACACCT
CTGCTAAGTCATCATTCTCCCATNCTCACTGCAGCAGTTCCTGGAATCTCATGAAGGGAA
GCTTGGGACCCACCGCACACCCTNTGCAAATACCTCACAAGTAACTTGGNAAATGCCG

Sequence 2874

CCCTTAGCGTGGTCGCGGCCGAGGTACAGTCCAGCCACAGTAGTAATCACCCTGGCCT
GACTGAGCCCTCACCTTTATACAGTGTCTCCTGCCACCCTCCTGGGAGAGGCTGTTCTC
GGCACAGCTGGCCTGGGGTCACACAGCTGGTAGGTGTAAAGCAGGCATTGGAGTCCAGGT
AGTCTCACTCCGTAGCCTGTCTCTTTAGCCACTGGAATGTAGAGCAAAGCGAGAATTGT
CCAAAGAGATAAGCTAATAAAGAGGAAAACAGGCTGGGTGCAATGGCTCATGCCTGTAAT
CCCAGCACTTTGGGAGGCCAAGGA

Sequence 2875

CCCTTAGCGGCCGCCGGGCAGGTACATCACCTGCTGAGGGACATCCAGGACAAGGTCA
CCCACTCTACAAAGGCAGTCANCTNCTGACACATTCGCTTCTGCCTGGTCACCAACT
TGACGATGGAATCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCCA
GCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCT
CCACCTACCAGTTGGTGGACATCCATGTGACAAGAAATGGGAGTCATNAGTTTATCAACC
AACAAGCAGCTCCAGCACCCAAGCACTTCTACCTTGAATTCACCATCACCAACCTACCA
TATCCCAGGACAAAAAGCCCAGCC

Sequence 2876

CCCTTAGCGTGGTCGCGGCCGAGGTACAAATAGAGCTGGAATGATGATGATCACAATGA
AGATGACAACAGTGGTGGCAATGACACGGCTGCCACTACTTGGAGTGGCCTCGGAGTTTA
ATATCAAAGGCTGGCCTGGGTTTGGAGCTGGTTGAGGGAGAAGTGAGTGTATTGCATACAT
GAGAAAACCTGAGCAAAGGAAAGATGAGACTCAAATGGCAGCACTAAGACCATTTTGAC
TGGAGTATCAGATATATTTTAAAAAGAAGACTGTAGAGTGACTTTTTGAAAGACATGGGG
GATTAAGCAGGTAAAGAGAAGCTTGAAGTGGTATTTAGAGATGCTACATTTAGTGACTTC
AGAAGGTATAAACTGAAGCAGCAATGTAGATTAATATTCAAGATATGGGGATAAAAGGT
GACTAAAGTGGGATCCAAAGCAAATGGGTGCCGAAAAACCANTGAAAGAAGAACTTGAT
GGAGGCTATGATCTAATTTACATTTAAGGGGAATGAGGAAAACCAAGTGGGAAGAATTTGC
CACCTTGAAAAATTAATACTGGAAGTTCTGACCCAAAGAAATTAGGGTTAAAAAAAAG
AAATTAANGCCTTTCTTTTGGGA

Sequence 2877

CCCTTAGCGTGGTCGCGGCCGAGGTACCTCCTTCAGTGAGTTGTTGGCACTAGGCAGTG
AAATGAGGGAGTGACCGCTCATGGCTCATGAACCTTTGCAAGTTGTGCAACTCAACTGTCC
CACCTTGAAAGGGCTCAGGAAGGTAAAGAGTGTGTTTTGGGACACAGGGATTGTTGCAT
TTAAATCTTTGTGACTGTGGTTTGGTCTCAGACTGGTTTTTCATGCATAAGTTCTTCTTA
CCCTCAGGCTATGGGATTTTACCTGTTTTCTTCCAGTGGTGTGCCCTCTCCGCCACAT
TGTGGAAGCGTGCTTTCTCAATCCTTCAGGAAGAAATTCAAAGACTTTNTTTTTTAA

Sequence 2878

CCCTTAGCGTGGTCGCGGCCGAGGTACATTATTTAGTGTAATGCCTAATGTTAGTCCTCT
TTATAGCATATTTATACAATTTCTATTATTTAAGAGGCTTGGGAATTCAAAGATGAAA
TGTGTGCCCTCAAGTAACCTCACTAATCTATTGTTATAAGTAGATTGTAATTCATGAGTG

TABLE 1A

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CTGTAACAGCTATCCTATGACAGCACTGAAGAGGATGTGGACTTCCTAGATGAATATGTA
TTGAGTTGTAGGGGAGTAAGAATTCACCTACCAGTGAAGTGGACCTGAAGTGGTATT
CCAGATTG

Sequence 2879

CCCTTAGCGTGGTCGCGGCCGAGGTACAGTTCTCAGTTTTCTTATAGGAGAAATATGGT
ATATGTTTATAAGAATCTTTTATGAGATTATAGATTTCAATGCTGTGGATAGTGTCTTGC
ACCCAAACAAGAAAGTCCATAATGGAATGATCTCCCTCAGCTTCCTATCGATTTAGTTA
CCTCTTGAAGCACAAAAATTAACATTGCCATATGTTGAATTTTAAAAAGCACTTGG
AGTGAGCGAACATTTCTGATAAATGCCTTTTAGAGATAGGTTCTTGATATTCAGACATC
TGCAGAAATGTTCTGGTTCCCAAAGTCATTTCACTTCGAAATAAACACAGCTCCTTCAA
ACAGCACTTTTTCCACATAAATCTAAGTTGCCTCTCCCTGTGGACATTCAGAACTGATAG
AACAAACACTACTCTTTTGAATTTGATGGTTTCGTGTCTTTAAAGTGTTTGAGGACCTAT
GCAGAGCCTGTACACTTGGGGTAGTACCTGCCCGGGCGGCCGCTCGAA

Sequence 2880

CCCTTAGCGTGGTCGCGGCCGAGGTACAAATTTATTAAGCTCTAGGTTTCATCAGATGACC
AGGAAAACATAGACTATCAGGACACAGACAAAGCAGAACTGCAGAATTATAGAAAATTCA
AGGTCTCATGGAGGAAAAGCAGTATCTACAATAAGAAAGAGACCCCAAACAGCACTCTAG
ATTTCTTTAAGAGGGATTATATTTCTCCTTCTCCCTTCTCCCTTCATTTCTTCTCTAC
CTCCCTCTTTTCATCCTCTTCTCCTTTTATCTTTTCATCATTCTTTCTTAAGCATTTTA
CTTAGTTACTACTATGTTCTAAGCACTG

Sequence 2881

CCCTTTGAGCGGCCCGCCGGGCAGGTACAAAATTGCTAATTTTATTCCAGTGATGATTAT
TTTTAACTTTGGTGATTACGTATCAAATTAAGGTAATTTCTATAAAAATCTACAGCCAGTA
AACTGAAACTATAGCTAAACTGTAGCTACTGTTTTATATTTTCTTAGATGCATGTTGT
TTTATTATAATAGTTTAATGTAGTGGTTGAATATGTGGTTTTCTTCTAGAATACC
TTATGTGATTTATTCTATGACTTTTTTCTTTGAACCTTATGACTCTTAGTATGTAAT
TTTCTTAAATTATACTCTTTTGTTGTTTATTCTAAACTACTTGAGGCAGATCTCAAAGT
TGAATAATTACTGTGCATCTCAGAGAATTGTCTTGTGTCTTTCAAATATATTTAGTTGTC
TTTAGCAGTAACTCTTACATGGTTATTTGCATGACTTAATAAACATTTCAATGCCCCCAA
GTTACCTAGCAGAAAAAGTCCACTTTTAAAGACATCTGTAAGAGAGAAGCTTTATTTTCT
TAAATTGGAAGCACATCATTTAGTCCT

Sequence 2882

GTACACAGCAAATACAATCTTATGTCAGTTATAAAGAATAATAAATAATTTTTTGAAAAG
CAAAGTGACTTGTCCATAACCACAATATTTTTCATTTTCAAATCTCATTTTATTTCTTA
TGCCACATTGCCTATAATTATACAGCTAACAATTATCCCATGCTCAGAAGAAATAAACT
GACGTAGTTAGTAATCAGTNATATATCATTCCCTTAAACAAGTATTGCTGACTTAATAT
GCATAAACTGCTGTACATACCAAATATGACCAACAGGTAAAGGGTGAGAACAAATTTCA
CTGACTACAATATTTATAGCAAAATAAAGTGTCTATATAGTGGGAAAGAAATATGCTTAA
AAAGAAAATAGGGAAAATGCCCAGTAGAAGAAATAAACTAAATTATGCAACCTGCCCTTA
AAAAAAAAGGCCTTTTATTGGTATTTCAACCTACCCAGAATT

Sequence 2883

CCCTTAGCGGCCCGCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTCGCTGT
GANACGAAGTTTNNNTNTTGTGCCCAGGCTGGAGTTTGACCCACAAAATAAGGTTCCCA
NATCACCATCAACTAAAGTTCAAATAGACAAACCCTATCCATCCTANCCAGNGATTATT
TAGTATTTGNGGAAAGCCTNTAAATTTAAAGGGTCCACGAACAAAGACNGAGACNAAAGA
ATNAGAGCNACATGTAGGAAAAAGAGATTTACACAGACTNTAAAACATTAAACAAAACCAA
GATTTGTATTACCAGAAAAAGAGTTTGTNTAAGAAACAAAATAAGNTGNTNTNGG
GAAAAAAGGAAAGCAGNTGGAAGCTTAAAGGAACTTAAGGAAACCTNCCNGAAAGA
AGAATNAAATGNGNGAAATNGAAATAGGGAGAGAAAACCTTAAAGCCCAAAAATAAAAAT
TGAAATGACNCATCNTTTTTNNGGAACCCAAAAAAAAGAAAAAAA

Sequence 2884

TABLE 1A

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CCCTTAGCGTGGTCGCGACCGAGGTACAGCAGGCCTAATGATAAGACAGCCTACCTGGGC
TCCAGCCTGCCTGTAAGTGTGTGAAGTCTTAGCAAGTCTTCACTCAGTCAGACTTTGCTTT
CTACATCTGAAAAAGTCAAAAGAAAGAAAAATAAAAACCTCAGCCTACCTCCCTCTCAGGG
TTGTTACAAGGGGGAAAAGAGCATAAACAGATGCAAGAAGTGCTTCCTTAAAGAGTTCA
ATATGAATTGTTTTCTGTTTAGGTTATGTTAAATCTATTTTATATTATTAATCCCTTCC
AGATGACACCCATCAAACAAACACCCAAATGGTCCATGTCTGAAAGACCACAGACTTTTC
TTTTGGGAAAAAAAAAAAA

Sequence 2885

CCCTTCGAGCGGCCCGCCCGGGCAGGTACTTTNTTTTTTTTTTTTTTTTTCTTTTTTGAGA
CAGTGTCTCGCACTGTCAACCCAGGCTGGAGTGCAGCGGTGTGACAGGCACATGCCACCAT
GCCTGACTAATTTTATCGTTTTCTTTTTTTTTTTTTCAGGTAGAGATGGGGTTTCACCTTGT
GTCCAGGCTGGTCTCGAACTCCTGACCTCAGGTGATCCACCTGCCTTGGCCTCCTTACGT
GCTGGGATTACAGGTGTGAGTCACCACGCCAGCCATTGATCTGTTGCCTCTTACTAGAG
CTTCTTGTGGATTCCAGTTTTTCCCACTCTATTTTATTCAATTTGTGGCCTTTGAAAA
TAGATCTGTTCAATTTCAATTTACCCACCAAAAAAGGATAAGTTCTTACTCTTTGAAATAAA
AATCAAACCTCCTTAGTCTGCCTCTGAAATAAAAAATC

Sequence 2886

CCCTTAGCGTGGTCGCGGCCGAGGTACCTATTGTATCAGAAAAATGCTAATTAATTTTT
GCACATAAAGGGCATTTTAACTTGGTTTTATTCTTTGTGATAAATATGGATGATGAATG
GTAATGTTAAACAGAATTCAAAAGTTATCAGTTTGGCTAGCCAGACACAGTAGTATATGC
CTATAGTCCTAGCTACCCAGGAGGCTGAGGCCAGAGGAGCCCGGAAGTTCACGTTTAGCC
TGGGCAGCATAGTGAGACACTTGTCTTTTATAAAAAACAACAGCAAAAAATGATCAGTTTT
GGGGATAAGTAAAGACAAAATGGC

Sequence 2887

CCCTTGGCCGCCCGGGCAGGTACGCGGGGAAAAAAATATTTTTATCTTTTAGAATATCAG
TTTGTCCCTTACAGTAATGTAAAATTACATTTATTTTATCTTTAGGATATAACATCTNAA
ACAGAGGCTATTAACTTTACACTATGTGTAAGAAACAACCTTGAGAGGCAACTTTATTA
TGCAACCAAGATCATGAAGGGGATGAATAAACCACTACTTAGAAAAAAAGTGCTCTAT
TATCATGGAATGGTTTTTCAATGATCCTTTCTTTGTTTCTGGAATCACTAGAACTAATCT
CCAATCTATGCACTGAATTTTTGACATACGATAAAATGCCATGATTTNATTAATGGATTA
AAATACTTGTCTGGAAGTATANCTTTTTTAAATAATTNCAGTGGATGATAATTTNATTGA
CAAGGTGACANACCTAAATCTGTTTTCNTCCNTGCCTTGCAAAAANGAACTTTTAGGGG
GATTAATA

Sequence 2888

CCCTTAGCGTGGTCGCGGCCCGAGGTACAAATAAAGTATTCCAAGGGTTCAGAATAGAAA
ATGATTTCTTCCAGCTTGGGGACATTTGGGAAATTGGGATATCCTTTGGGGAAATGTAGT
AATCANTATATTCTGGGAAAACATAGTAGAAGAATGAATAAATAAATTCATTGAATTTG
GAATATGTTGCCATTCTCCCTGTAAGTAAATGCTATCANGATAAAGTAGAAATACCACATT
TCANAAACAGCTGGAGTAGACAGGTCTTCATAGGCTAGCTTGGGAAACCTAATAACTATT
AATAATGAAATTTTAATTATACTCTTGATTCTAAACAAATGAACACACAGTGATCTTTT
TGACTTGCTGCTTGGTTAT

Sequence 2889

CCCTTAGCGTGGTCGCGGCCGAGGTACTGATTGTTGAACTCCGAGTCACACTCATTATGA
CCTGGGAGGCAGATGTCTAGCCTTCAGCTAATTATGATGGGCAGTATGGAGGAGAGTGTG
AGTCAAACCTTCCATGGAGGAAAAGGAGTGAACACTCAGGGAGACTGGAGCCGTTTAAAA
GGACATGGGGAGGATCTAATCAGGATCTTGAAAATTTAATGTTCTCAAAAGTTATTTCTA
TCAGTCTTAAGTAATAGATGAATTTCTTTTTGCCACTGCAAAGATGATACTGTCTTGATA
ACCATCTCTATCATCATGCC

Sequence 2890

CCCTTCGAGCGGCNCGCCCGGGCAGGTACCACCTGACTCAGCTGGGTGCATTTGACCAG
TTTTGCCCCCATCTGTAAATATCCCTCAGTCCCCTATGGAGCTGTAGAGGTGAGTGATGAA

TABLE 1A

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GCAGTGACAGCTCTGGGTAGGAACTCAGCTTAATTTCAAGTTCAGACCCTCTCCATCCT
CAGGTTCTTCTTCTGTAAAATGAAGATCCCTTTGCGGTGAAACGTTTTGCAGCTCTGGAA
TCTGAGGGTGTAGGAGGAGCTACAGAAAGAGGGGTATAGGACTCACCTGAATAAAGGTGGC
ATCTGTGATTACTGTGGGCGAGGGTGAGAGGGAAGAGGATACTGACCGCTAAGCCTTGCC
TTCTTAGTCCAAATTTTGGTTGTGCATTAATATGTCTTAATTTTTTTATAACTTAACC
TCACC

Sequence 2891

CCCTTAGCGTGGTCGCGGCCGAGGTACAGAAGGCTAAGTATCGCTAATTTCTATTTCAGAG
ACACAGGGACTCTACCCTTGTTCCCTGGCTTTATAAAGCTGCTCAGTTCTAATGTGCACTG
CACACAACAGCTGCCAGGGCCACAAACACCCCCAAGCAGACGTTAGGCTCTCAACCCCTA
AGATACAGTTTTCTCTCAATAGCTCATAAGACTCTGCCCTCTGACGTGAGAAAATAGAA
TTCTGTTGTGCTTTTTAAGTATGCCTATGGCATCTTTTAAAATATACCATATATGATCCA
GTATTTCTTTGTGTTTGGAGTGTGAATCTGCAGGTGAAAGAGTGTGTTCTACACGTGCCC
GATCCATCCTCATTACACAAATTCACCCTCTACTTTAAAACAGGGAATTTGGGCCTTTGA
CAGGAAACAAGCCGGACAGTCATGGGGCCAAGCTGGAATCAAATGTAAATATTTAATTC
CTCCTGTTAAAAGCAGAGTGGACCCACAGTCCCTTCCAAAGTAA

Sequence 2892

CCCTTTGAGCGGCCCGCCCGGGCAGGTACCCAAGTGAAGTGGGGCTCAGCAAAGTGC
CCTGGAGGAAGTGATACCCAAGCTGAGAGATGAAGAATAATGAGTGGGGTAGCCAGGGAT
AGGTGAGAGGGAACATCCTCCAGGCAGAAAGGAGAAGCAGACACAAGGGAGGGTGTGGCAA
GAGATGAACCTGAAAGGCAGTCTTGACCATATCAGAGAGGACCTTATAAGCTCATCATG
AAGCTTAAAATGAATCCTTANGTCATTGGACAGCTGTGGAGAAAGAGTTTGTAAAGGGAG
GGAAGTTATATGAATCACAGGAATTTTTTAAAGGTGGCTATGGTAGTAGTGTGAAAAGAG
AAATGATTAACAGTANGCAAGCTCAGAGAAAGAAGCCCGCCAAGGAGGCTGTCACCATAA
TCCAGCAGAAAGAAGATGGTGGCCTGGACTGGGAAAGTGACTGTAGGGGATGGAGAGAA
ATGGATGGGCTTGGGAAATGAGAAAGGGATAGGATCCACAGGGCTTAGGATTTGAGTGAA
TAGAAAAGAGAGAGAAAAGTTAAACCAGACC

Sequence 2893

CCCTTAGCGTGGTCGCGGCCGAGGTACCACTGCACTCCAGCCTGGGCGACAAAATGAGAC
CCTGTCTCAAAAGAAAGCCCTCTCCTTAGCTGAGCAGAGGAAGGGAAGGAGTGTGGCTAT
GAGAATATGATTTATGCCATTTTCTGTTTTTAAATCTAGAAGATCTTCTAAGCACAAATA
CAGCTACAATGAAATATTTTACAGACAAAATGTTAATAGACCATATTCTTTGAATTAAT
TTGTTTTTAATTTCTCTACACATTTTTTTTTTCTGGAGTCTCTTAGCTCTAAATATAT
CAATCAGATTTATAATTTTTTTTACCTGATTCAGATGTCTTACATTTTTATATTAATGA
ACCTTAAGCATGATTCTTTTGGTAAGCCAGTATGAATGCCAGTGGTTGGGGGGCGGG

Sequence 2894

CCCTTAGTGTGGTCGCGGCCGAGGTACAGTCCACAAAATGGTTTGCTTCTGAAAAAGCAG
TAGTAGTCTTACATCCAANATTATTCCTAAAATAAAGTTTCGACCCACATATATAATGAA
ATTGAAACTGCCTACATTGGCAAAGCCAGAAAGAGAGTAAAAAGATGGGGTAGGCCAGT
TGCGGTGGCTCATGCCTGTAATCCAGTACCTGCCCCGGGCGGCCGCTCGAAAGGG

Sequence 2895

CCCTTAGCGTGGTCGCGGCCCGAGGTACTGTCTGTGACAAGAGCAAGAAATACATTTTGA
AGTGGTTTTGTTTTAGTAGCTAAAGTTATCCTGACTGATCATTGATAAAGGATATTTACC
AGCAGTTCACAATGAACATACTACTACATGTATATATTAAGATCATAGCCTGCACAATA
AAAAGAAGAAAATAAATAAATTAGAAAAATAATAGTTTAGAAACAAAGACACAGTATTAG
TTCTAGTTACAGAATATGATTCTCCAAATAGTATATGCTATCAGCTTCATCAACAAGTAA
CCAGAATACCAAAGAAGACATAGAAATGGCTAACAAGTATATAAAAAACATGCTCAACATC
ACTAATTATCAGAGAAATGCAAAATCAAAGCCACAATGAGATATTAAGTCACACCTGACAG
GATCACTATTATCAAACTACAAAAGTCAATACTTATTGGCAAGGATGTANAGAAATTGA
AACAGCATGGAGGGTTTCTCAAAATATTAATAAATAAGAACTACCATATGATCTGCAACCAC
TTCTGGGTATTTATCCAA

TABLE 1A

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Sequence 2896

CCCTTAGCGTGGTCGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTTTGGGA
GACGGGGTNTNACACTGTTGCCAGGCTGGAGTGCAGTGGTGCAAACATGGCTCACTGCA
GCCTCGACTTCCTGGGTCCAATNAATCCTCCTGCCTNANCCTNCAGANTAGCTGGGACTA
CAGGCATGTGTCACCACTCTAGACTAATTAACAAACAAAAATTGTAGAGACAGTGTCTCG
CCATGTTGTCCAGGCTGGTCTNAACTCCTGGCAATCCTTNTGCCTTGACCTCCCAATNT
GCTGGGTTACAGGTNNTGAGGAACCTGCCTGGCACCCAGTTTTTTTAAATNAANTTTTCC
TACTGTNCCCAACCAAAATGACTTCTTATGAAGCTTNTCATCANTTAATGAGCTTTATTA
ATGANANCTTCAACACTGGNCAAGGGGGGAAAAAT

Sequence 2897

CCCTTAGCGTGGTCGCGGCCGAGGTACAGGCGTGAGCCACCATGCCAGCCTGAATCCCC
CTTCTCAAAGTAACCTTCATTCACTTTGTCCCTGGCAGTCTGCTGGTGACCATGATTTTC
TAAGGCTCACTCATGGGACCAAAGGCAAGAAAGGAGGAGGGTGGTAACCAGATAAA
CTTTGCAACCCCTTTGATAGGACTTTTTGGGTGAGAATTTTTATGAAAATAATATATAC
TTCTACTATAGATCTGCCTCTAGTTTCAACCTCTAGTTTATGCACTGATTTTTTCCCCTT
AATTTCCAGAAGCATGATATAATAATCTTTTTCAAAGAAAGTGGG

Sequence 2898

CCCTTAGCGTGGTCGCGGCCGAGGTACCCTGGGGGTGTCATCAACCAAGATTAGAAATAT
GGGAAGATGAAATGGTTTTTAGGAAAGATAATGATTTTAATTTTAGAACTGTCAAATCTG
AGGTGAATCCTTCAAAAAAGTCAAATGATAGTTCCAAAGAGTGACCATGAAATCTGACAA
ATAAGAGTTATCTTAGCAAGGAGCAGTCTCATGGAAATAATAAAAGCTGAAACAAATAGT
AGTGATTGAGGAGTAAATGAGAGGTGAAGCAGTGGAGATAATACAGGTTCTGTTTGGAGG
AGACTTGGCAATAAAGGTGAAAAAATAGGATGGATGAGATAGCACTCAGCAATGAAATGT
AACAGAAATTGATGCAACACGGGTGAATCTCAAAATCATGCCAAGTGAAAGAAGTATAGTC
CCTATAATCACCTATAGTCCCAATTACTCAGGAGGCTGAGGCAGGAGAACTGCCTGAGGC
CAGGAGTTTAAGACCAGTCTGGGCCAACACAAGCAAGACCCCCATTCTTTAAAAAAAAT
TAAAAAACATTANCCAGGCATTGGTGTGGTGCCCCCCTAGTTCCCAGCTACTCAAGAG
GCTTGGGTTGGGAGGACTTNGNNCTCNTGAGTTNAAAGACCAGTCTNGGGNAATCAAG
CCAGANCTNNTTTCTTNAAAAAACAANCCATAAACCTT

Sequence 2899

CCCTTCGAGCGGCCCGCCCGGGCAGGTACTCCTATCAGTGATGTATGAGAGTTACAGNTGC
TTCACATGTCTGTCAACATTTACACTGTCACTGTTTTTATATTAGCCATTTTAGCATAT
ATGAAATAACTGATTTTAATTTACATTACATTTCCCTGATTAATGAGTTGAGCACTTTTT
CATATGCTTATTTTTCATTTGTATATCTTTCAAGAAGTGTCTTTTATGTCTTTTCTCATT
TTAAAGTTGGGTGTCTTTTTATTGTAGGTGGTTATTCTTTGTATTTTGAATATAAATCCT
TTTGATAGATTATGCCTATGATTTTTTAAAGACTCTATGTNTTCACTTATTGGGGATCTT
TCGAAGGAACAAATTTTTTTTATAAAATCCAACCTTTTATCAGGTTTTTTTAAATNTTAA
TGGNTTTTTATNGACCCTCAAAAGTCACCAATAGGAACATNATTTTTNTTTCCTTANAAA
GTTTTTATGGGTTTTTGGG

Sequence 2900

CCCTTTCGAGCGGCCCGCCCGGGCAGGTACATCTCTCCATATGCAGCAGGAATGTCTTTTT
TATTTAAGGGCACATTTACACAAAGAGCAAATGGTCCAGACTCAGTCTTCCATAACCTAG
AGTCTGAATTGATCACTCTATAAAATGGAAAAATGTTNCTTTTCTTTTTTTTTTTTTTT
TTTTTTTNGGNTTTTAACTTTTTTGTAGACAGNGTCTCACTTTGTGAGCTAGGCTAGAGT
GCAGTGACACGATCACAGATCACTGCAGCCTTGACCTCCTGGGCTCAGGTGATCTTCCCA
TTTCAGCCTGCTGAGTAGCTGGGACCACAGGGCGCGTGCCATCACACCTGCCTAATTTTT
GTATT

Sequence 2901

CCCTTTCGAGCGGCCCGCCCGGGCAGGTACTGTAGTTATAAACTGACACTGTTTACAATT
AACAGTGTCTAGAAATCCANTTGTGTTGGAGGGTATTTTACATTATGAAATATTGACTTCA
GATGGTCACTGCTATTTTCGAGATCTATGACTATGTTTCAAGGAGATCCATTGGTCTGAC

TABLE 1A

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AAAAAAGAGATGTATATTCCTGAAAATTGCATGTCCTCTGGAGTCTGTTGTCTGGATGG
TATCAGAGAGGTATTAGAACTGTCCTCAGAGGTCATTACAATTTTCTCATAGTGTTCGTC
AAGGAAAGAGTTGGGGTGTGAAAGTCTTCTATAGTATTGGGTCCTAACCAAGTCAGGGA
AGAGAAGCAAATGCC

Sequence 2902

CCCTTAGCGTGGTCGCGGCCGAGGTACTTAAGTAAAGAAATTAACCTCTAATAATACAAT
ATTTTTATTAGTTAAAAATAAAGGACATATGTATCTACACACACATATATGCTATACATA
AATACATATGAGAAAGACAAAAATTGAGAGATTAAGAGACAGAGAGAGTTTGAGATAGAG
AGTTCAAAAAAAGCAAATGATATAAATTTACAAGAGTAAATAGAATAATCATGTGAAG
GGGTATTAGGAGTTCTTTGTTTTATCTTTTAACATTTCTGTAAGTTTAAAAATTATTTCA
AAATAAAAGATCTAAATATTTTCAAAAAATAAACCAAATTTTGAAAATCTAAAAAAT
TTTCAAAAAATAAAAAACATAAACATAAAAAAC

Sequence 2903

CCCTTAGCGTGGTCGCGGCCGAGGTACTAACAAGGCCAGAAGCCTTCTACCTTCAGTCTT
GCTCTGGCAACCCACCTCTTCTTTCATCTTCTCCCATCTAGGGAGATGTCTAATGGGCA
TGATAGTTAGAGGTGGTGAGAGGATAGGGACAGGAAAGTCCTGCCTGTGGGACAACAGGG
ATCAGGGACTCAACAAGTCTTAGGCCTCTCACCAGGACCAGCATGTTGGGAAGCTGCCTC
TCCATCCATATTCAGTCTCAGAATGGGCAGCTGCTTCCCCTGCACCCTCATCTTGGTCTG
GTCTTGGTGATAGGGTGGGG

Sequence 2904

CCCTTTCGAGCGGCCGCCCGGGCAGGTACAGTGGTGACAAGATCTCAGCTCACTGCAACC
TCTGCCTCCCAGGTTCAAGTGATTCTCCTGCCTGAGCCTCTGAATAGCTAGGATTACAGG
CACGTGCCACCATGCCTGGCTAATTTTTGTATTTTAGTAGAGACAATGTTTCACCATGT
TGCCAGGCTAGTCTCAAACCTCTGACCTCAAATGATCCACCTGCCTCAGCCTCCCAAAG
TGCTGGATTACAGGCGTGAGCCACTGTGCCTGCCCTAAGCCTGTGTGTTTTATTCTTCTG
ACTTGCAGGCTAAAGCGGCAGCTCTTCCATATCTCATTGCTATCTCCTAGGGCTTCCGCT
AGGAGACTGATCTGGGGCTAGAGGCCTCCCTCTGTGTACACGAGAATGCTGGAAATGTCA
CCTCTCAGGGCTCTGCCTGCCTCTCAGCCCTGAAAGCCATGGTGGAAGGGGTGGCGCTT
GACATAGACATCTGAGGAAAAGAAGTGAGGGAGGGTAAAGGGTGGTGCAGTAAGANGAAG
GGGTNNGGAAGG

Sequence 2905

CCCTTGCCCCGCCCGGGCAGGTACATTATCATTATTTTATATCTTGCTCAATCTTTTAGG
CGTCAATCTCACATCAAAAAGTTTATTGGCCTATAACGGCACGAGCCAACTTCAAATTAT
TTTTTAAAGTTTTGTGATTTGTAGATTATGAATCTCTGGTAACTACTTGTAACATTTG
GCTCTGTTTTCTGTGAATATTTATCCCTAGCTAAAAAAATTTCTTACATCTTCAGAAGAG
CTATAATGTTGACACCTAACTACACTGTAATACTACACAGTAATAGGACACTAAGCAGAT
AGATAGGTTTTTAAAAAATATTTGTATTTTCAGCACCTGGTAATACAGTGGTCTA

Sequence 2906

CCCTTAGCGTGGTCGCGGCCGAGGTACTTCGTTGGTGCCTCAGTCTTTAAGGATTAACCTA
GGAAGAATTTTCTTCTGCATAGAACTTTATAAAATAACGACATTGTTAATAATTCAGG
CATAATATTACATTATACCTTTCTTGAATGCTGACGTTGCATACAAGGGTGATCTGTA
CCTCCATCATTTCTTGGCTCTCACTTTTAGACCTATTTCTGACATAANAACCTTGGTGG
GTAGTTCTGGATTTTTTTTTNCTTCTTCTTTNTATTTTTGAGACAGGGGTCTCACTG
TGTCGCCCAGGCTGGCATGCANTGGNTGCTCAAGTGATCCTCCAGCCTGTGCCTTNCTGA
GTNAGCTTGGGACAACAAAGCACANGCCACCAGGTNCTGGCTAATTTT

Sequence 2907

CCCTTTCGAGCGGCCGCCCGGGCAGGTACATCACCTGCTGAGGGACATCCAGGACAAGG
TCACCACACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCA
ACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACC
CCAGCCTGGTGGAGCAAGTCTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGG
GCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATCAAGTTTATCAA

TABLE 1A

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CCAACAAGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTCACCATCACCAACCTACCA
TATCCCAGGACAAAGCCCAGCCAGGCACCACCAATTACCAGAGGAACAAAAGGA

Sequence 2908

CCCTTAGCGTGGTCGCGGCCGAGGTACTTTGCTAGTATTTGTGGGTTTTGTATTTTACAT
TTAAATCTTAATGTAAGATTTAAATGTAAATCTTAAACATCTTAAACACATATAGTTTAA
GGTGTGAGGGGAGATTTAACTAATCTGTTTTTCTTTTATTCCACTTATTAAACCCAAA
TGTTTAATCAGTTGTCCCTAATATTGTTTAGTGAATAATAATTGCAAATAATATGGTTTT
TATATTTTGCAAGGCAATTTTCTTCATCCTTATTCTTCTTTAAAAAAATTTCTGGA
CTATTTCTACATTATCATCATCCATCATCCATTATTATT

Sequence 2909

CCCTTAGCGTGGTCGCGGCCGAGGTACATATGGATTTGATACGTAGATATAGATTTAAGA
CTAGAAATACTTATAGATATATTGGTATATAAATGGTATTCCAGTGCCCTTTTATAGGAT
AAAATTCATTCTTATATTAGAAAAATCCATTCATACATAATTTTGTATTATTCAAGACAT
AAATGTTGAACAACATAAGTGCTAGACAATATGGTAGGTGCAAAATTAACACTAGAAAATT
CTTCCCCAGAGCACTGATTTATCATTACACAAGCACAAATCTTTAATTCTCTAATCACAT
AAAATTATTTTCTTCTAATAACTTCATCTCAAATTCCTTTGGTTTCTGTGAAAAGAATC
TTATAATATGTCACTATACATACAAATTATGAAAAATTTATGCAAACATACATCCTTTTC
AGGAAGAACCACAAATCTTCTGCTTGAGGATCATTAGAAGGCAAATTATTTAATC

Sequence 2910

GGTCGCGGCCGAGGTACTTAGAACACTGTTGATGGAGTATATCTGTTGTGAGCCTGGTTT
CTGTGTATGTGTCCAATTCAGTGATAGGAGAAGAAAGCCTGTAATTACATTTGCATAAAG
TGTTTGGCTGCTAAAGAGATGTAATTCATTATTCCAAACCTTTTAATTCATATTTTAAAA
TATAAAACTAGTATATATATCAAGGAATATTTTAGGAAATCTTGTAGTTACCTGTAAGT
GTCTAACTGTGTATTCAATCAGTAACCAATATGGAAATTGCAGAGTTTCTTCATCAGAAG
ATATGAGTTTAAATTTTATATTTGGCATGCACAGCAATATATTAATGCTGTGCTTAACT
AGAAAGTATTGTGCAGTGTGATGGCCTTTTAACTTCACAATATACATTTTATTTTATTC
CCTAGACTTGACATGAAGTGCATATGTTTCATATTTACCCGTTTGGAGATGGGTANGATA
CAACCAGCATAGCTCCATCTNCATGGNCCATCTTTGATTTTCATGCCNCCTTTCTCTT

Sequence 2911

ACCCNTANCGCGGTGCGNGCCGAGGTACTATTTGGGGGATCAAGATNTGNAANATTTAA
CTGTTTTTGGTAAAACTAGCACTGTTGGGAAGAATGCTGTGGAATACCACAACTAGTT
TNGCAAAGGGGAAAAAGAAATGTTNANAAGTGTGATTGATTTTAAACATCAGTAGTGAT
AATACAAGGAAAGCTTTTA

Sequence 2912

CCCTTAGCGTGGTCGCGGCCGAGGTACAGTTCTCAGTTTTTCTTATAGGAGAAATATGGT
ATATGTTTATAAGAATCTTTTATGAGATTATAGATTTCAATGCTGTGGATAGTGTCTTGC
ACCCAAACAAGAAAGTCCATAATGGAATGATCTTCCCTCAGCTTCCTATCGATTTAGTTA
CCTCTTGAAAGCACAAAAATTTAAACATTGCCATATGTTGAATTTTAAAAAGCACTTGG
AGTGAGCGAACATTTCTGATAAATGCCTTTTAGAGATAGGTTCTTGATATTCAGACATC
TGCAGAAATGTTCTGGTTCCCAAAGTCATTTCACTTCGAAATAAAACACAGCTCCTTCAA
ACAGCACTTTTCCACATAAATCTAGTTGCCCTCTCCCTGTGGACATTCAGAACTGATAGA
ACAAACACTACTCTTTTGAATTTGATGGTTTCGTGTCCTTTAAAGTGTTTGAGGACCTATG
CAGAGCCTGTAACACTTGGGTAGTACCTGCCCCGGCGCGCGCTCGAAAGGGGC

Sequence 2913

CCCTTCGAGCGGCCCGCCGCGGCAGGTACAATTGGGTAGGCCCAGAAGAGGAAAGAGAGCA
AAATAGAGTAGTCAGGAAAAGAGGGCCAGTTTGGGCGCCTGTTAGCTCCTGTGTGGTGT
GAAAGGCACTCAGATGTTCTGTCATCTCTGATGGAAACACAGAACCTGGCTCAGCTGAG
AGACAACAGCTCTGTGATGGGGAGGTTGAAGTGACCCACAGCAAAGTGGAGAGGAAGTT
GTTGAACAGAAGCTGTGGCAGAGACTCAAAGAGGCCTATAATGCTGGTGAGAACTATGGT
GGCCTGAGTCATC

Sequence 2914

TABLE 1A
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CCCTTAGCGTGGTCGCGGCCGAGGTACTCACCTGCCACATCCTAATCTCAGCTCCTCTCT
CTCCCACCCTCATCCACCTTCCATAACATGCTTTAGTCCCACCCTACTGTCAGTTATTCC
TGCAAAGAATACAACTTACAGCCGGGCGCGGTGGCTCACACCTGCAATCCCAGCACTTTG
GGAGGCCGAGGTGGGTGGATCACGANGTCAGGAGATTGAAGACCATCCTGGCTAACACGG
TGAAACCCCATCTCTACTNAAAATACAAAAAAAAAAAAATTAGCTGGGCATGGTGGCGGG
TTGCC

Sequence 2915

CCCTTTGAGCGGCCGCCGGGCAGGTACTTTGTTTATGGATCTGTTGAATCTGAGGAGAA
GTGATTGCTTTGAGTTAGCTAGTTTTAAATTCATGACACTTTCCCAACATAATTAGGTAT
TTGAACCTAAGTGTGTGCTAGTGTATTGTATATTTTTCATTAATTACTTTATTGAAAGTT
GCTTTGGGAATCAATTCACCTCAATATATTTTACTGTTCTCAGTGAAGAATGTGACTAAT
AAGTATTTGGACTTTCAAAAAGTGATACAGTCTTTGTGATAGTTTTTACCTTTACATTA
ATGAGTTGGAAAATAAC

Sequence 2916

CCCTTTGAGCGGCCGCCGGGCAGGTACCACTTCACACCAGCCTGGGTGACAGAGTGAG
ACTCTGTCTCGGAAAAAAAAAAAAAAAAACGAAACAAACAAAAAAAAATAAATGTTCACT
TTTGGGCTCTATGCCCAACAAGTGAGGTTGCTGGACTGTGACTACAAGGACACCTGAGCT
GTAAGTGTGTCCATGCATCTCATTTTCTCTTGAGAAGACTAAAGAAGTACCTTTAAAT
AAACACAGCTCCATGGTGGCCCTTCAAAGTCATCACCTCAGGAGGCCACACACGTGCC
TGAAGGATGCTGCCTTGGCTTGCAAACCTCTCAAGCTCCCCAGAGTAGCCTTCANGGTC
CCCTCCCCGCTACACAACAGCAGCCAGCTTTGCTAGCAGTCACTTCTATGCTTCTCTCCC
ACTGACAGTTACTGNGAGTGAGCCTCTGCAAGTATTAACAGCGCCTAATTAATGCAGTGA
CCCAAGATACAAGCGGTGACAACTCCTTACCCTTCAAGTANGGCCTNTGTGGCTGAAAA
TTTTACAATGGGCTTGTGAAGGGGA

Sequence 2917

CCCTTAGCGTGGTCGCGGCCGAGGTACATTTACAGAAAGGCCACTGCAGCTGCATCATAG
TTCTATAACTCTTCAAAGTCCCCAGGCACCCTAAGTAGATAGCTTGAAGCTTCACCTTTA
CAAAGTCCAATCCATTGCATCAAAAGCCTACATTATCCCATTTCTGTGGCCTAGAGATT
ACAAATCACCTGAAGTAATACCAAAACCCAGTGAGTAAAGACGGAAGTAAATCTAGTGAG
TTTCCAACCAACCCACCGCCCCGAGATCTTAAAGGAAGCAGTAAACAGCAACTAGAACTC
ACATGAGAATTTATAGGCCAAGAGATTTTAAATGTAAGCATTCTTATAATTAATACTCT
TACAAAAAATGCCATTTAATCAGACAAGGGGAAAAAAGTANCATCAAAGAGATGCTGAC
AAGGGAGACAATGAAATCAAAT

Sequence 2918

CCCTTTGAGCGGCCGCCGGGCAGGTACTTTTATAGTAGAGACGGGGTTTCACCGTGTTAG
CCAGGATGGTCTCAGTCCCCTGACCTTGTGATCCACCCACCTAGGCCTCCCAAAGTGCTG
GGATTACAGACGTGAGTCACCGCGCGCAGCCCGCTTTTGTGGTTTCAAAGTTCTCACTT
GCTAATGTCATGTTAGAGATACAAATTTAAAGTATGCTAAATCAGTGGAGAGAACAGATG
TTTAATCTATAGACACTTATACATGCACTAAGAAAGTTGACTACTATACTGAAGTCCCTT
ATAAGAAAGGGAGTTGTTAAGGATAAGGAATGTGGATTGGGCTCTTTCAGAGACTCCATAC
AGGTATATTTAATTAGCAAAGGAGTCAAAAAACACCAGTTGTTATCAACAGCACTTTGC
ACATGTTGGGATATGATTTGCCAACTGGTGAGACTATTTAGGTATTAACATANAATATA
TGTCAGCTTTTGGGGAGAAAAAAGTAGTCTAGGACAGTAAAAAGTCTTATTTGCTTAAA
TGAACCCATAAACNTAGGCAGCATTCTTCAAAGTGGTATTNCATGGATCACCAATCCTT
ATAAAA

Sequence 2919

CCCTTAGCGTGGTCGCGGCCGAGGTACAGAGTATTTTAAATCTTTAGGGGATCAAGATGTC
AGATGCAAAACAAAGCTGCCATTGCAGCAGAAAAAGGAAGCTCTGAACCTGAAGTTACCCCC
CATTGTCCATCTCCCAGAAAAACATAGGCGTTGATACACCAACACAAAGTAAGCTGCTAAA
ATACAGAAATCCAAGGAGCAGCAGCAAAAAATTAATCAGGTTAGTAATTGATGGAGCCC
AAAAGAAATTTAGACAGAACACTGGGTAAAAAGAACACCTCTATTACCACCACCCTGATT

TABLE 1A
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ATNCCTCAANACTATGACCAGTGAAAATGAAAAAAAAAAG

Sequence 2920

CCCTTAGCGTGGTCGCGGCCGAGGTAAGTTTGTGTTGTTAAGAGTTAAGGCCTTAA
CTTGGCTCAAAATAAATTTAACTGTGATTTCTCTAATTTTTAGTGCCTACTGTTTACCA
GACACCTAGAGTCAATAGTGTCCTAGAATCTACGGTGTCCAGGGCTTGAGCAAGATACTT
TAGTGAATATAAACACTAACGAGACCTTGCCTTTTCTCAAGCCTACAGGATATCAGCCTA
TTTGAAGAGTGACACTGGCTTTACACCCAGAAGCCACAAAATAGAATGATGTAAGTAA
TTTTTGGTAGCTCTCTGGGTAATTTATGTGGTGTTAGGACTCTTTGGGTTTGAAGNAA
AGAGACTCGTGATCCCATTTCTGGCATTGACAGTAACTTCATTGGA

Sequence 2921

CCCTTAGCGTGGTCGCGGCCGAGGTACAAATTATAATACACATACCAGACAAATTTATT
AAATAATAAAGAAGGGAGAGAGAAAGAGCAAGACACTTTTTAAGCACCATGTGCCAGGCC
AGTGCTTGAATCTCTTCTACGTTACTTCTCCTTATTATTTAACCCTTATTTAAATGTTA
CTACTCCCATTTTACAGATGGAGAAATTTAGCTTAAGGTAATGACAAGATTGAACCTCAA
GTTTTCTGACTCCAAAATATGCCCTCTTTCGACCACACCGTATTATCTCTAAATATGGAA
AACATTTCAAAGTAGCAAGCGTNTTCAGAACAAAAACNAAAACAATCTAAGGGGGCTTA
CACATTATAAACATGGTTTCGGGGTCAT

Sequence 2922

CCCTTAGCGTGGTCGCGGCCGAGGTAAGTTTGGAGAAAATGCACAAAATCTGACTAAGGAGC
CATAAGACTCTGGGTGCAAATAATTGAAAAAATATTTTGAAGCATAATATCAATTCAT
CTAGTTTTAAAGTTTTTACAAATTATAATAGGGAATTCTGCTTATTTACAAAAATAATTA
TCTGACCTTAAGAGGATTTTTCTTAACATCACATAAACCTGATGGCTTTACACAGTGATG
ATGAGCTATTATTTTCAATTTTATCCTGATAAACTACATAAAGAAATTGCAATTTTTATATGC
AATTATTCATAATGTATGTTTGGATTTCCCTGTTTAAATTCTATTAGAGTCCTACTTTAT
GAAAAATCTATCATTTAATATTCTATTTAATACTGAGATGAACATACATAAAAGCAAACA
GATGAAGAAGATGAGTAATATCTCAGGATCTGTAGCCATCAGACTATGAGCAAATCATAA
TATATTATTATAAGTCCCTTCTGTTACAGTCAGATATTTAGAAAAATAACAATAATGTA
TTAAAAACGGAACCTTCTGGTCTTTAAATAGCACAAAGTAATCAACTGATAAATCTAGA
TAATCTTATAGCTCTCTATACCTATNGGTTGGGTTTGCCTTTTCTA

Sequence 2923

CCCTTAGCGTGGTCGCGGCCGAGGTAAGTTTGAAGGGCAAACCTTTGTGTCTTAC
CACTATGATGGGAGAAGAGTTAAATAAACAAACATAACAAACAACTAATTATATACTCTG
GTGAACACCTCGATTTTATGATNAAAGGGAATATACATTTATTTTCAAGAACTGANTTAC
ACTTTTACAAAGTTGACCATATATTAGTTAATAAAGCAAATCTGANAACATATTTAAACA
ATTATCATATAAACTACATTCTTTGATCAGAATGAAATTAATTAGAACTCAGTATAAAT
AAAGAACACCAAATAATGTGCAAGTCTGGAACATCCTTCAAAGTAACCTATAGGTCCAC
CNNNNNGGANANAAACCAAANNCAANTNATGTTCTGCCCCGGGCGGC

Sequence 2924

CCCTTAGCGTGGTCGCGGCCGAGGTACGCATAGGAAGGAAGCTGTCCAAGCCCTCCATTG
CTCTTTGAGCTCATCATGTGATTATAGGGAAGGGGAAAGGGAATGATTTCTCAGAAAAA
TATACTGATCACCATATATTCTTTCCGGGATGCTAAACAAGTATCCAGAAAAACATTTACA
TGTAATACATCTACAAATCCTCTTTCCAGTAATGCTTATGTCTGTCTGATCTGAGATATA
AAATCTTTCTGGGTTACTAATTTCTTAATTTGGCCAATTTATTTAAGATGCTCTTCAA
GTTTTAAATTAATTGACT

Sequence 2925

CCCTTAGCGTGGTCGCGGCCGAGGTACAATTTCCACTCTTAAAAATTTACTAAGGTTTGC
TTTGTGGCTTAAGATATGGTTAATTTTTATGAATGTTCTCTGTCTGACACTATTATTAG
CATTGTATAATATCTAATGTCAATTAGCTGAGAAAGAGAAATGAGGCAAACAAATTAGAA
AGGAGAAGGTAACATTATTACTATCAGATGTTATAAAAGAACCAACAGGACAATCTATAT
AAACATCCCCGCGTACCTGCCCGGGCGGCCGAAGGG

Sequence 2926

TABLE 1A

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CCCTTNTTGTGGTCGCGGCCGAGGTACAGTCCACAAAATGGTTTGCTTCTGAAAAAGCNG
TAGTAGTCTTACATCCAAGATTATTCCTAAAATAAAGTTTCGACCCACATATATAATGAA
ATTGAAACTGCCTACATTGGCAAAGCCAGAAAGAGAGTAAAAAAGATGGGGTAGGCCAGT
TGCGGTGGCTCATGCCTGTAATCCCAGTACCTGCCCGGGCGGCCGCTCGAAAGGG

Sequence 2927

CCCTTAGCGTGCGCGGCCGAGGTACTTTTAATGTTTCTTATACTTGTTTCTTCAGAA
TTTAATTAGTTTTAAAGGAATTTTTCTCATTATAAAATACATAAACTCTCAAATTCTTTT
TGTTTTGTTTTGTTTTTTGATGTAAGTTCTCGCTCTGTCACCCAGCCTGGAGGTTGCAG
TGAGCCGAGATCACACTACTGCACTCCAGCCTGGTGAC

Sequence 2928

CCCTTAGCTTAGCGTGGGCGGGGCCGNAGTACATTTACAGAAAGGCCACTGCAGCTGCA
TCATAGTTCTATAACTCTTCAAAGTCCCCAGGCACCCCTAAGTAGATAGCTTGAAGCTTCA
CCTTTACAAAGTCCAATCCATTGCATCAAAGCCCTACATTATCCCATTTCTGTGGCCTA
GAGATTACAAATCACCTGAAGTAATACCAAAACCCAGTGAGTAAAGACGGAAGTAAATCT
AGTGAGTTTTCAACCACCCACCGNCCCCGAGATCTTAAAGGAAGCAGTAACAAGCCACCT
AGAACTNCCATGANGAATTTTNTAGGCCNAGAGATTTTAATGGTAAGCATTNTTATAAT
TAAATACCTTTTACAAA

Sequence 2929

CCCTTAGCGTGCGCGGCCGAGGTACCAGCCAGTTTTGAGATATACCTGGTTTGCTTT
AATGTTATTAAATTGCTTTGGTGAGTTTTGCAAATGGACAATTGAACTTTGTTCTGCCAA
ATTCTTTTTTATTGCATTTAACTTCAGGGTTTTTTATTTCCGGCTTATTATGAATGGAT
TAGTCATTTTGTGAATAACTCTTCATTGAGTTTAGGGAGAAATAGGACGTTAGATCCGAA
GATGCTATTTGTTTAATCACCAGAATGGACAAAATTATACTTCATTTACTATCAGGGAGG
CATGGGGAGAATAGAGGCCTAGGGGTGCCGTCTTGTTGGCTCTTACTGTTTTTGTTATCT
GGTTTTTTTTTTTTTTTGGAGAGGGCTTCCATTATGTTGCCCGTGCTGGACCCCAACTC
CTG

Sequence 2930

CCCTTCGAGCGGCCGCCCCGGGCAGGTACGCGGGCAAGTCTGCATGGCAAAAAAGGTGTCC
ACAAGTGTGAATGGCTCATTTTTAATGACTAGCCAACAGCCACTTGTAAGATGTAATT
GAAATTGTTTACAGAGATTAGGTTCCGTCTGCTTTGNCCTCCTTCTCAAAAGTTTTATGGA
TCCAAGCTATTCTTAAGCATTGTTTAATCTAGGAAATAGCCTTTATGGACTAATNATAAG
AAAGAAAAAGGCANATTTTTAAAGATATTCCAAATTCAAAAGAAAATAAGTTTGGGCAG
CTGACTTTTGATTATCTGTAATAAATCANGGCCAATAGTTTTGAACGGGAAGAGTAAAT
ATGAANGGTTTTCTAAACCGTTTTTTCTTGGAAGAAGAAGGGGTGAGNAGGTTAAGAAA
GTTNTTCTTTTTTTNATCNAGCCATGTGCCCTACCAAAAAACATAAAATGGTGGTTTCCT
GTGAACCCTCAAAAAAGTAAATCAGTGAGTGNGATGNAGGGAATTNGG

Sequence 2931

CCCTTAGCGTGGTTCGCGGCCGAGGTACTTGAAAACTCTGATTCCCAGAGGGAGGGTAACA
TAGAGCAAAGCCCCCTACTTACCCACAAAGAATATTCGGTGTGTGGCAAAAAGGGGAAAC
TTGTTATTTTAAAGTCACTAATTNAAAAACCTAGCTCAATCTAATACTAGCTCAATCTA
ATACACTAATTTTGTTTTTAAATTAGTGTAATACTAATTTAAACCTAGCTCAGTCTAATAC
ACTAATTTTGTTTTTAAATGATAATACAGTAATGAATACCTAGAAGACAAAGGTTAAGGG
AAAGGAAAAGAGAAAGAGGTGCTGAGAAAAAACAAGGGGAGTTTGAAGTGAAGTTAA
AGAGCTCATTAATAATTTTGACAGATCATCCATCTTTTCATCTGAACTCCGTATCTATAAA
TCCTGAT

Sequence 2932

CCCTTAGCGTGGTTCGCGGCCGAGGTACCTCCCCATCAGTGACATTAACATTACATATTAA
TTCAACAGGACATCTCCTATATGCCAGGTAGTGTTCTAAGTGCTGAGTGAGTTATAACTG
TAACAAAACATGCCTGCCACTTAAGAACTTACAGGGTAATGAGTTAAAAATGAACACAT
AAATAAGGTAACCTGNTGATAATGGGGAAATGCTNNGAGGAAAATAAATTGGGGAGGCNG
GGCGGGGGGGT

TABLE 1A

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Sequence 2933

CCCTTTGGCCGCCCGGGCAGGTAAGTAAACATCAAAACACCAGAATGAACATCAGGAGGG
AAACATGAAAGTAGCCACTCCAAGTAAGGCTCCAGAACATACTCAAATGAAGGAACCAGG
GCTTTACTGCGTGACCTAGATCAACAACAGAGCTGTTCTCCTTCTTTAGCTAATCAGGA
GCATTTAGTTGGGATTGGGAAAGAGGCAAAATATACATAGAGGTAGAAAATGAAGATTTA
TATGGATAACTTCACAGCTGTTTCCTGTGAACCACATTTCTAGCAATAAACTAATCCAA
TTGGGAGGGGAAAACAATATGTGAAGAA

Sequence 2934

CCCTTTGAGCGGCCGCCCGGGCAGGTAAGTGTGTTGTTGAATGGTATTTTGAAGCAA
TTGCATAGTTACTATTGATTCCTCAAAATGCATAATGGGGATGCTTCTGACCCGACTTGC
CTTTTAGCAAGTTGAAGGTAGGTATGCACCGACAGGGCTCTGACTTCACCAGAACTAATA
AGTTAGATTGCAATAGTAGGAGACAGATATAAATAATGAAGGAAGCTAGAGTTATGACGG
CTTTCTGGAAAAATGTTGGGAATTGGAAAGAAAATGTGGAAAGAGAGTTGAGTGGAAAGAA
AGACTAATAGAGTAGGAGTATTAGTTTTATGAGAATGTGAGTAAATCTAATATTGGATAA
ATGAATCTAAGGCTACTAATACTACATTTTTGCAACTTACATTTTTGAGTATTTGGGTAG
TAAATCACTCCGATAAAAACTTTAGAGTGGTTCACCTNTCAAGTCACATAATTTGTG
TTTTATCNACATATACTTGGTTTTTTAGTCCAAAANTANTGGTTNGGANTTTCTTGGNTA
CNCCTNACTTTGGAANACANTAAAAGTACCCATTTAAAAATTAATTCCAATTAATTTGC
ATGTTATTTTTTTTTTTTAAAGCATTNTCCTNGGGGGATNTATNGNCTTTGCAAAATTT

Sequence 2935

CCCTTAGCGTGGTCGCGGCCGAGGTACGCGGGGCAAGCAGGTGTTCCATGAGCTGAGCCA
GCAGACCCATGGCATCACCCGGCTGGGCCCTACTCTCTGGACAAAGACAGCCTCTACCT
TAACGGATGGAATCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCC
AGTCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGC
TCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACCA
ACAAGCAGCTCCAGCACCCAGCATTCTACCTGAATTTCAACCATCACCAAC

Sequence 2936

CCCTTTGAGCGGCCGCCCGGGCAGGTAAGTCTCCAGGCTATTAGTATTATCTAATGAGT
GGCTTAAAGATACCAGAAACACTGACTGAGGTCTCCACCTGCTTCTGGCTGAATGAATGG
GAGCTTCTAGCCATTGAATAAGAGGCAGTAGCCAATGTTTCTTATTCTGAATGGTCCAGG
TTGACTTTTATAAGAGAAACACTCANCCTTTTAATTGCTGAANGTCTGGCCCATAGACTA
AGATTGCACATTCTTAGTCTAGGTTCACTTGAAGTACTGCACCCACTGACGATATATT
CAGTTCAGGTGTTAACTCACTTGGATAAGCATNTGGCCTGTCCT

Sequence 2937

CCCTTAGCGTGGTCGCGNGCCGAGGTACTAAANACTAACATTTATTGAGCACTNACTAGAT
NCCATAAACTGANATTGNCNTTGATCTNTGATTAATTAATCTCACAATCCTTGCTTTTCT
GAAGTATNTNATTCAATCCTTTGAATGTCCCTAATGCACAGATAAGGAAATAGGCTGCTC
TNCANATAAGGAATACANATCCTTGTGGATTCAACCCAGATCTGACTTGAGGCTAAACTC
CTAACCA

Sequence 2938

CCCTTTGCCGCCCGGGCAGGTACGTTTGTATCAAGCTAGAAAATTCAGATAATAAAGT
CAGCATCTGGATGAGGTAACACATTTTTCTGCCATTCTAATCTCCTCTCCTGGTATTC
AAGTCATAGATACCGGCCCTTTATCCCCAAAGAGTCAATTCTATTGTTCTTTCTTTATAT
AGATGAGAGTCAGAGAAACAAAGTAAGGTTTGGGAGAAATGGACATGGTATAGTTTTAGC
TAAACATTCTAATATACAAAAAAATTTAAGTTGTTTGAACAAATAACACCCAAAGT
CTACACATTTATAGTAATAATTAATTCAGCTAATTCAGATAAAAAATTTGTTTCTAAC
TGGGAAGGCCAGAGTCTGTATTTCTACAGACAATTTAAAAATCGAGCCTGGAAGCAAATA
TCCAGATAATTTGGATCCCTTCTCCAGTTTACCCAAANGAACAGTTGTTTCAAGGTA
GGGCACAGTTATACCATGTTTGGATCCACATGGATGAAAATTTACTACT

Sequence 2939

CCCTTTGAGCGGCCGCCCGGGCAGGTACCCAGAGGACCAGATGATTGATGGGTTCTACC

TABLE 1A

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ACGAGCATCTAATAGCGACTGCTGCAGAACTGGTGTGGAAAAGGTTTCTATTTTATAAAA
GAAAGTATCCAGAAGGCTAAAGGCAGTTGTGGAATTTATTTCTTCCCAGTGCTCTGATTG
TCAAAATTTGAATAAAGCTCAGTGAAAGGAGGACAGTAATTAATGACTTGATAGCCAAAC
ATCGTAATGATGATTTAGTGATATACTAGACTGGATGAAAGAGAGGTCACTGTCTTTTCA
CTATGGATTTCATCATAAACAGTATCATT

Sequence 2940

CCCTTAGCGTGGTCGCGGCCGAGGTACCAACTCATTATAAGCAGATCACAGTCATATAGT
GAGAGAGAAGGAAAAGAAAAACCTATGTAGATCTAGAGGAATTACCTAAGAATTCCTAAT
TACATAGGATTAAGCTCTGGGCTAACATCAAATTTTAAGTAATTACTAAAATAATTTCTT
TTCTTTCTTTTTTTTTTGTAGACAGAGTCTCATTTTGTACCAAGGCTAGAGTGTAGTGGC
TTGATCTCAGCTCACTGCAACCTCCACCTCCCGGGTNCAGGTGATTCTCCTGTCTCCAAG
TAGCTGGGATTACAGGCATGCACCACCACCTCCAGCTCCTTTTTTTATTTTTAGGT

Sequence 2941

CCCTTAGCGGCCGCCCGGGCAGGTACAGTTCTGCTCAGAATGCCCTATCTCCTNANTAA
ANNNAANGNNGGAGANANGNCCTATTTTGGGAGAACTAATTTTGCAATTCCTGCCAATT
TTTATGCATTTTGCCCTTGTTTCCATAATTACAGCACCTCCATCATCTCTTCATCACCTCC
ATCAAGATACTTTCACTTCCTTTTAAAAGCAAAGATCTCTATTTAATGTAATGCTTCTCA
GTTTATTATTACATTTTATTTTTTACCATGCTATCATTTTTACTGGGATTGTCACTG
CTTTGGTTAATGCTCTGGTTACAAAGTGGCATTGCTGTGGGGCAGTCAGCTGTAACCC

Sequence 2942

CCCTTAGCGTGGTCGCGGCCGAGGTACAAGGTGATACATTCTAGCCTTCTACAAAGTGCA
CTTAGACCANGATATTCTTTCATGATGGCAGACAAATGAGGAGTTTCTTTTCATTATCTA
ATGAAAAAAGAGTTGGTCTATATTTTCTCAGTGTATTCCTATAGGGAAGAGAGTCTTATT
GTTGATAACCTTTTACAGACAAGTAAGATGCTTCTGCATCCTATGAGGTATTCCTAAAGCCC
CTCTTTAATCTCCACCATTGTGCATAATTTTGTGATAATGAAGCAGTTATTTTCTTCTCT
TGATAGACATTTTATGAAGGCAGAGACTATGCCACTCTTGCTTACAGTTGTAGCTCCAGC
ATCTAACATGGTGGCTTAACACATAGAAGATGCTCAGTAATTAATGTTAAATGAATGGG
ATGGGTGGGTGGATATGCCCTAATATGATGCAGCTTGATTATGCTNGAANTCTGGCTGGA
TTAAGACATCATTCCTCAAGAAGTAAATACCAGTANTCTTTAACTGTTGCCCTGTATCTTA
CACACCTGAAAGAGACATCTTTCCAAGGGTGATNAAAAAAAAGGTCATACCCTTTGAAA
AA

Sequence 2943

CCCTTAGCGGCCGCCCGGGCAGGTACTTAGATTTGCTTAGATACCTGTAAAAGTGGGATT
GGTATGGGATAAAACGTTCTTGTGCTGCTTGCAAAAGTCTTTGGAATATTCTTTGGGATA
TTTTGGTGCTTAGGAAGTGCTTTTACGGTTATATTAATATATGCTTAGTCTTCATGCTTT
CAAGTCCTGTGGGACGTTAATGTTAGTCTTTTAAAGTTGAGTCCTTTTTGGTTATATTAAG
AGGTAGTTCTTGATGTTTCAAAGGCCATCCAGAAATAGGAATGCCTGAACAGGAATTTCC
AATTAAGTCGGTCAGAATCCTGAA

Sequence 2944

CCCTTGAGCGGCCGCCCGGGCAGGTACGCGGGACACAACTAACCTCTAATGTCAATATA
CTGTGAAAAACACTGTGATACAGATATGTGGAGGGTAGTATGAGGACACAAAAAGAGTG
ACAGCTAACCCAACCAAGGTGGTCTGGAGAGGCTTCTGGGAGACTGATTTAGACTTAAG
TGTTATGGACTAAGTAAGAGCTACCTGAGTGAAGAAGGAGGGAAAGGAGACTCCATACAG
AAGAGCTGAGGAATGAGGAGTGTCTAGGGTAGTCATGGTTTCTTTTTTTTTTTATGA

Sequence 2945

CCCTTNCGAGCGGCCGCCCGGGCAGGTACCAGTGATTACCTGCCCTCCTACCCTGGGCC
TGCCCCATCCCCCACTTAAGAACTACAACTAACTACTGATGAAAACATTTATATATGT
TGATACTGAAAGANTCCCTGTAGAGGAATAGCAACTGGATANGTAAGCNACTGCAGAAAA
AAAGGTGGGNAAAATTTGNTTAGGGCATATCCTTTANNTTTAACTTGAACTTTCTTCCN
ACNACCNAATATAGNACCCCAAGGNACCTTTGGCTTAACCTGCACNCTTAATGGTTNT
NCAAAATTAAGGAAAGNGGAAAACCAAGGTTNGGCATTAATTGGTTTTTACNAAAAAATTT

TABLE 1A

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TTAAAAAATTTGGGGGNATATGNAACCAACNANAATTGGTNANCTTAANATAACNNACC
NAAATTNGNTTGGGNGGAAAAATTCNCCNTNGAAAATTTTGGGGTAATACCCCTTTGGGGG
AAACCCANNGAAAAAAGGGGGAACCAACNTTTCNAACCAAAAAAAGNTTTGGGG
GAAAAANAACCTTTTGGGNTTAAAAAAAT

Sequence 2946

CCCTTTGAGCGGCCGCCGGGCAGGTACTATCTTTTATTTAGATATGCTGAGATAATTAC
AGATGAAATGTTTTGGGGTTTTTTTCTACATAATCTGTTGTAATACTGGTGGGAGAA
AGTGGGTGTATAAACACATTGCTGCAATTAAGTGATGGAGACATGAGTGTTCAATGCACT
ACAATTACATTTTATTGAAAAATTCCTCACTCAAATTTATGGAATAGGTATCTGTTAGAA
ACTATTGATCATTCTCTCTAAATTTGAAAAAGAAGCTGTATTTGACTCTTATGTCCCAA
TAAACTTAAAAATGCTGCCCAGAAATGTTTGGTGTGAAAAAAGGAACTACAAAG
TCTTTT

Sequence 2947

CCCTTTGAGCGGCCGCCGGGCAGGTACTACCCAAACCTAAATTTAGAAACAGGATTA
GAAAAATATCATTCTTCTTCTTGGCTATAAATTTACCCATCAAAGTTAAATTTAATT
ATACATTCTTAATAGTCTTGGATAGACAGGGCTTCACAGATAAATTGTAATTTAAGCAAG
AATTATTTTTCTGTTTAAACCTAAACACAATAATGTGGTCTTTACTAGCTCATCTCAA
TTGAATATCATGCCCTTAGTATTTGGGCTTTATATAATTTAGTGTGTATTAATTTCTGC
TCCTGAGCTCTTATAAATGAACTGCTGGGAGCTGTGCACAAGGCTTAACTAAAGAAAC
CTCTTAAAGACAGTGTGGATATCACTGAAAGTATTTGGGGGAAACTAAATTTAATGT
AAAAGAGAACAACCTTTTAGAAAGAAGAGAACCATAAAAATAAATGCAGCACTCCTTTGA
CTTTGNCTAATTCCTTGNCTCTTTCTGGGTGGAATTCCTGTAGTCAATGNGGTTAAAAAT
ACATCAGCACCTTTGCTTCTNCTATAATGGAAAAATTTAAATTTAAACAAAA

Sequence 2948

CCCTTAGCGTGGTCGCGGCCGAGGTACTTGTTTTTGGCCACAGGAATCTTAAGTGAATT
AATTAACAGGTGAGTGGCATTGCTCCTGAACAGAGCTACCTAGTTATAATCTGTGTTACC
TTTGCTTTAAATGTTCTCTTACTCCATTTCTTAGTTGATATGCTTGAGGCATCTGT
TGAATCCATCATTTATTCACCCACTCATTCAATTCACATGTATTTGCAGTTGCAAAGCAG
GCAGTAGGAATAAAATTAGGATCAAAATAAGGTAGTAAGTAACGAAATTTGCTGAGTATG
TTCTGAGAGAATAGCTGAATATACATTTCTAAATGGACGACAAATCCATTTGGAAGTCTT
TCTCCTCCTGTTATTTTGGTAA

Sequence 2949

CCCTTAGCGTGGTCGCGGCCGAGGTACCGTAAATGGAAATTATCCCGCAAATTACGGCAT
CTCCAAATGTAGCGTGGAACATAATTGACATGTCAACACAGGATTAATACATAGTAAT
CAAAGAGTGCTTAAAAATTCATTAATAATGAAGTCCACCTCTAAAAGTGAAATGTGCAA
ATTAAAGTAGCAGTTAGATAATGTTTTGTCATTTAGGTAAAAATTACAAAAGAATCGGCC
GGGCGCGGTGGCTCACGCCTGTAATCCAGCACTCTGGGAGGCCGAGGCCGGCAGATCAC
CTGANGTCANGAGTTCAAGACCAGCTGGCCATGGTGAAACCCCGTCTCTACTAAATATA
CCANGAAATTAGTTGGGGCCGTGGTG

Sequence 2950

CCCTTAGCGTGGTCGCGGCCGANGTACANCAAGATAAGTGACCTACTGAGGGACAGAGTT
CAAAATAAAATAGGTTTCAGTCACTCAATGAAGTGCTTTGCTGGGAGATCTCGCCTGGTC
CTGTGGTCTTTAGTGAAATATGGGGAACAGCAGGGGACGTAGGTCAGATAGTTTATA
ATGGTGAGTTATAGTTGTATATTATAAGGAGCATTCTCAGCACTGAAGAAATTTCACT
AGATTCCAGCTCACCTTTCCAACTATTAAGGCAAAACGGGACTGTTTTTCAAAAATTG
GAAAGTAAACCTGGCTTCTGTTAGAAATTTGGAAAATATTGAGAAGTTTTAGACCCAGT
CCCTTTAACCTTAAGGAGCTCACATGCAATAAGATGGAAGGGCAGGGGAGATCANGACAG
AAAACCTACCGATATGGCCGTGAGAACATGGAAGCTTATATCAAGTGAATCTTCTTTGAA
TTTACCTTTTTATAAATCTTTTAAAAACAAATTTGACTTTAAAAAAGCCCCAATTTTAA
TCGGAATGCTAATTAGCACCTTTAAAGTTAGATGAAACATATCAGTGGAATCAAAGCCT
ACGCCTCAAATGGATGTATTTAATGGTTT

TABLE 1A

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Sequence 2951

CCCTTAGCGTGGTCGCGGCCGAGGTNCAAACATTAAGTGTGTAATTCATGAGTTTTGAC
AAATAATGCAGTTTTGTAAAACTTTGGTGAAATTGGAAAATAACCGCACCCAGTCACC
TTGTTTTTTGGCTACTACTAAATTGACTCTGATCACATGGAAGTGAATAATTTTCTTT
AGTGTGAATGCCCTGAGCCATGAGGTAACCCCTGTTCTGAAGTGGTTTCCTTGCTGTAAA
TAAATAATGTTGACATGTAAAGCAGGACCACCAAAGTGAAGTCTGTAGTAATTTAAT
GTATTTTCCACTCTGGACAAAAAGATGTGTCTTTATTCCTGATAAATATTAATAGTTCTA
GAAGAGGACATTTTCCAAATTAAGAATTAGGTATTTNTTCATAATCCCGGGTAGTA

Sequence 2952

CCCTTAGCGTGGTCGCGGCCGAGGTACAAATTTATTAAGCTCTAGGTTTCATCAGATGACC
AGGAAAACATAGACTATCANGACACANACAAAGCAGAACTGCAGAATTATAGAAAATTC
AGGTCTCATGGAGGAAAAGCAGTATCTACAATAAGAAAGAGACCCCAAACAGCACTCTAG
ATTTCTTTAAGAGGGATTATATTTCTCCTTCTCCTCCATTCTCCTTCATTTCTTCTAC
CTCCCTCTTTTCATCCTCTTCTCCTTTTATCTTTTCATCATTCTTTCTTAAGCATTTTA
CTTAGTTACTACTATG

Sequence 2953

CCCTTAGCGTGGTCGCGGCCGAGGTACAAGCCGTGTCTAAGGAGCTGGTTGGAGAGTTTT
TGCAATTTGTTCAACTTGATAAAGAGGCCTCTGATCCTTTCAGCCTAAATGAATTACGAG
ATGAATTATCAAGGAAACAGAAAGAAGATTATGGCAAAGGCTGAAGAATTTATTGACAG
ATGTGTTGTTAGAAAGCCAGTGGATGGGTGGCAGGTAGTGAAGCCAGGGTGAAGACA
ATATGGAACCGAACATGGCTCAAAAATGAGAAAAAGCATAGAAATAATTTATGCAATTA
CATCTGTGATTCTTGCTTCTGTGTCTGTAATAATGAAAGTGAGAACTACGAAGCCCTAC
TGGAATGTGTTATTATATTAATGGTATTTTATATGCA

Sequence 2954

CCCTTAGCGTGGTCGCGGCCGAGGTACAACGTGGGCAAGCATCTGTGCATATGAAATGCT
GTTTTTCTAAAAGATTTCTCACATTGGCAAAGTGAAGATTTTCTTCTGGAACACAGGAA
AGATTATATTAATGCTNATAGCCATACCATGTCTGAATATGGGAGGATGACAGACACNGA
ACGAGACCAGATAGACCAGGATGCCAGATATTCATGAGGACCTGTTTCAGAAGCAAAGGG

Sequence 2955

CCCTTAGCGCGCCGCCCGGGCAGGTCCGGGCAGGTACACTGCATAAAGCCAGAGTTAAAA
CTTCACTGCCAGCCTCTGAACAGAAGGCTGTTCTATCCACACTATCACAAGACCTGGTGG
AGTTGAGGCAACTGCTGAATTACCATACAGGGAAGAATGAATCAAGAAAATTTCCCATGC
AAGATAGGCTCTTAAAAAATAAATTTACACAAGAAATCAGCACTGTAAAGGTAATTGAT
AAGCCCAATAGAAGGGAAACCTATACAAAGAAATAGAAATAACTAAGCAATCTGAAATGG
ACTTTAAATAATGATGTTTACAATCTCTAAGAGGAAAAGGAGCATTAGCATCAGTGAAA
CAAAAGTAGGGCTATAGAAAAACAATACTTATGAAAAAACAATTGGAAATTTTGA
TGAAAAGCGCGAAGTAAAAAATCAACCCCATGGTCTAAAAGAATAAACTGCACCCAG
CTGGAANGGGAAAATTANTTAATTTTACGAAGAAACCAATTAATCTTACCAGAATGTA
AAGGAGATAAAGATNTTTTAAATAAATCNGGAGTTTAGGAGATNTAACTTTTTTCCATA
TGGAGTNTTTTAAATATCCATATGGTTATTATGTATTCCATATATATCCCNAAAGGGGAA
AGGG

Sequence 2956

CCCTTAGCGTGGTCGCGGCCGAGGTACAACTATTCTCTTTCCTATTGCATTTTCCCTTG
AGAACATGAAGTACAAGGAACAAGGTGAAGGAGTTTGAAGTGGACTTTAGGGATAATATA
ACTCCCTTAAAGAAAGTGTAAATGAAGGAGAGATTTTACAAATGGCAAGTAGCATAAA
AAATGGGAATTGTAAAGAATTAGTATAGATGATTTTGAAGTGGGAAACTTAAACACTAA
TTACTTTTCAAGAAAGATTTGAGATGATTTTCTTATAGTGGGGTATAGTGGTAAGGCCCT
TCTATGAAGTATGTGATGGATTGGACTACTTCTGAGAGCCCTTCTTCTCTTAAATCTT
ACGGTAAAAGTTTTGAAGAATCATATTTCAAGAACTTTTTCTTCTTCCACATTAGCCA
TCTTCAGATAATAAGAAACCAGATACCTA

Sequence 2957

TABLE 1A

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CCCTTTCGAGCGGCCGCCCGGGCAGGTACGCGGGGATGGCTGGATTTTTTTCTTTTACTT
TAAGAAGTCTGTCTTTTAACTGACTACATTATTTATATGAAATAGAATTCTAGTATATTT
TGA CT CAGTTTTCCCAACTTATTTCTGATTTTTCTTTTACTGCATCCACTTTTTAACTGG
CATCAACCCCTTCTTTTGGGTTGGTTGTGTTTTACGCACCTCCTCCTCTTTTCCTCACT
CCACTGGTTTGCAAGTTATACATTTGATTTCTTTTCTTTCAGTGCCATGCTCTGATAAAA
TAAAGGACATTTATTACAGAAAA

Sequence 2958

CCCTTAGCGTGGTCGCGGCCGAGGTACACAAGTCACGATTATACAGTTTAATGAGTAAAC
ACTGATCACACCCATATAAACCCTGCCAGGCCAATAAGTAAAATCTTACAAGCAACCCC
AAAAAACTCTAGGCCTCTACCTTTAGAATGCGTTTGCAGTATTTAGGACTATTGTAGTT
CCAAAATTACTAAAAGTAATGAATCATTAAATGTATGTGATTACATGTTAGAAATTTTAT
TTATTTTTTGAAGCATGCATGTTTATCATTCTTAATATACTTTCTCCTGTTTAATCTCT
TATAAACCTTAACTGTAGTGACTNNTAGGAGAGTGAAATTCATGAATATAAAGGTAGTC
CATAAAACCGTGATTTGTAGATTTTAAATCTGAAAAACATTCTCATATGCACCATAAATT
TTGTCACTGTTCTATTTGATTTGCNTATCTCTACAGGTGAATGAATTTGTTNNTTTGAA
GAGGATGGGGGAAGCNTTNCATTTTAAACAGGGATAAAAACTGAGGGAAANTGA

Sequence 2959

CCCTTAGCGTGGTCGCGGCCGAGGTACAAATTTATTAAGCTCTAGGTTTCATCAGATGACC
AGGAAAACATAGACTATCAGGACACAGACAAAGCAGAACTGCAGAATTATAGAAAATTCA
AGGTCTCATGGAGGAAAAGCAGTATCTACAATAAGAAAGAGACCCCAAACAGCACTCTAG
ATTTCTTTAAGAGGGATTATATTTCTCCTTCTCCTCCATTCTCCTTCTATTCTTCTCTAC
CTCCCTCTTTTCTCCTCTTCTCCTTTTATCTTTTCATCATTCTTTCTTAAGCATTTTA
CTTAGTTACTACTATGTT

Sequence 2960

CCCTTAGCGTGGTCGCGGCCGAGGTACAAAATTGCTTGAGTCTGAAGAACCTGCTANGGA
GCATATACATCTTCAATTAACCTACAACCTGGTCTTCAGTAAAACCTCTGTCCCTGNCACA
CTGAATNTGGTGTAAGTCATTTTTAAACCTTCTGGCCAAAACCCAACCATATATGCTTT
CTTGTAAGCCANCTTCATATACCTAAAGAAAACATGTGAAAGGCCGGGCACCGATGGCTC
ACTCCTGTAATCCAGCACTTTGGGAAGACGAGGGGG

Sequence 2961

CCCTTAGCGTGGTCGCGGCCGAGGTACCCACTGATGTCGTCATGGTGGCAAGTCAGTGTT
GGCCCTGTCTAACCACAGGGAAGGGGTTCTCTACAGAAAAGTAGAGTTTAGATCTGAGA
AGGTAGTTGAGAATGAGTGCCGTATAGTGAATAATAGTAGATTTTTACCCATTTTACCC
CTTTGTCTTTGGTTGTATATATATTACATACCATTCTAATTATACATATAGTTTCAAAA
ATGCCTCTGCTTCTCAAACACAACATACTTTATATATATTTTCAAAAACAGTTCTACC
TCCTTCTTCAAAGATAAATATCTGTGTTTTGTGTCCTCCATGGCCACCCCTAAGAGAGG
TGCAAGGAGGATTTTCATTCTGGGAATTACCTACTTTAATAGCCT

Sequence 2962

CCCTTAGCGTGGTCGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTTTGGAGATGGA
GTCTCCCTCTATCGCCAGGCTGGAGTGCAGTAGCACAGTCTCGGCTGCCAGGCCTCCCC
AATCTCTTCTTCTCACAGGGCAGGGCTGAACAGTATCTCCTCCTGGCTGCATCCGAGCCC
ANAAGTCAAAACCTAAGGGGTCCCTGCTTGGCTGGGACAGAGGCCGCGANACCTAGGTCCA
GCTNTGACTCGACAGNGGCACATCCCTGTGAAGTAGGGCTTGGGGGCTTCCCATGAACAG
CTTTCANAGTGAGTGCAGTAGAGTGGGGCTGGAGGACAGTTTTGACAGATCTTGAGCAGG
TGCTTGAATTTTAAACCAACATCCACCCTTACCCATGACCCAGGTGACATTTTCAGAGGAG
GGTTCACCTGCCCTGCAAAGTAAGAGCTGCAAAATCA

Sequence 2963

CCCTTAGCGTGGTCGCGGCCGAGGTACCAATGAGGAAGAGAGTTTTGTAAAAGCAAGCAG
GCTGGCTGTCAATTAAGTTATCTTAAATAACTTGTGCGAGCCCACTCCCACCAGTCCCTG
AAAATAGTTCATTCAAGTGGTAAAACAAGACAAGGCAGAGGACGATGTCTCTAACTTCCC
TGATGTGAGATCTAAAGCCCCATTCTAACTCTTGGTTTTAGAATTGAGGAAAGTGGAAT

TABLE 1A

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AAATGCATTTGGAAAGGATCTGTTNTCTTCCCAGGTTTCCTGCCTGGGTTGAAAATAAAG
GGTTCAGGGGATGGAAACAACCTTTGAGGAACATAAAGAGGTATTGGGGGTTTCATCAATTC
ATCTTTGTTTCAAGATGGGTCCCCCCCACCCTCCNCAATGCAAGTTAATTAGGGAGATAA
TTTTAGCCTACCTTTGGGAATTNATNTNTAAANATAAAGTTATCTTTTTTAANGCTTTG
TCACTTTAATTGNCCNCCCCTGNATTTGATAANGAAAAGTAGTTTTTTTCTTATTTGACC
NCTNTTTTNGANTGNCTATTNGGAANNCTTTTATTTTGGGNACTTTTTTGGGGGGTGGG
AAAGGAAAAGTTAAATT

Sequence 2964

CCCTTAGCGTGGTCGCGGCCGAGGTACAAAGAAGCTGAGTGATTTGTTGAGGTCCCAGTG
GAGTGTCAGACCTAAACTTCCAGTTTCCCAATTACTTAAATAAGGTTCTTCTCATCAGAC
CCTCTTTCCTCATCTCTCTACTAAAACTACAGTGAATAACTTCCACTGTCATCAAATA
GAAACTTTCTGTGCTGGTTTCCCCTACCCACCTTTCTGTGCTTGATAACAGAAGCTGTT
GGGAGCCCCACCTTCAGTCTTATTTGTCCTTCCTTGCGNGTTTTTCTTTG

Sequence 2965

CCCTTGCCCGCCCGGGCAGGTACAATAATGGGATTGTGGTTATAAGGGAGAATGCCTCTA
TTCTTCAGAGAGGCACACAGATTTACTTGCTTTTAAATGGTCTAGCAAAAATAAAAAACA
ATCCACTCATAAACTAATATGACAAAGTAGATGGTTCTATAGGTGTTCAATGCATCATC
CTTTCAATTTTCTAAATATTTGAAATTTTCTTAATAAAAAAGATAGGGAAACAAAGGTGGC
TTGGAGGAAACAAAAACAAAAACAAAGAAGATCCAGTCTAATGGAAAGATGCAATG
GACTCAGGGATCCTGCAGCCAAAG

Sequence 2966

CCCTTAGCGTGGTCGCGGCCGAGGTACTGTTGTTCCAGACTGTATGATTGAAATAGCTGT
TATTTTCCCAGTTTCTGTAGATCACATATAGGAAGTTCTGCATAATCATAGTGATGAAAA
CTCATGTTTAAAAAATCCATATATAATTAGCGTGATACAACACAGCATCTTAACACTGAG
GCTTTAAGTTTAAATAATTCTGTTATTCTCAGTAACACTGAAAGTTGCCTGTGCTCTTTC
TGTCACACAATTGATTCCAATGTATTTTAAATGTGTTTTTCTGAGTCATTTGTTGCCTT
GTTACTTTTTTAAA

Sequence 2967

GGNACTTAGCTGGGAATCTGCATCTTTAGAGNTCAAACTGTGCAGTTTTTCTCTGATT
AGGTATTATNATGTTGAACTCCAAAGGGTCATTTACATTCCTTTATAACACTGGAGCTCT
GGTGTATCGAATTGNGTTATGAGATAAGCCACTNGCAGGGACTTGAACATTCCATTTCT
TAGATTTTGTNGTATCAGCATGTGAATATGCTGAATACAACCTGTATCCTAAAGCATAC
AANCTATAACATTTTCACGTTGGACTCAAATTC

Sequence 2968

CCCTTAGCGTGGTCGCGGCCGAGGTACCTGGAAGGCCCCACTGTTACTTCTTCATACAGG
CAAAAGCTAATCAACTATTTACCTTGCAGCTAAGTCAGGACAGAGTGACTTGGAGAAGT
GCAGATGAACTCCCGTGGCTTTTTCAGCAGCAGGGAAGTAAACAGAAGCTGCATGATTGC
CTTCTTAATCTCTTTGTGTCTCAAAACCTTTATAAAAGGGGACACTTTGCTGAGTTGCTG
AGTTATTGGCAGTTTGTGGCAAAGACAAAAGTGCAATGGCAACAGAATACTTCGATTCA
TTGAAGCAGTATGAGAAAACTGCGAAGGCGAGGACAACATGAGTTGCTTAGCTGATCTT
TATGAAACCTTGGGGCGATTTCTCAAGGATCTAGGCCCTTCTCAGTCAGGTAAGCTCAGCA
GATCAATGGCAAGCCAGAGACAGGTGGGATTTTTGTGTTCACTCTTCTTTTTTCCAAGA
TGTTAATGTGGTTTTTCAATTTGTTGTGCTATAATCCTTAATATTTAATCAGATGACAGATC
TTGCAGCATTTCACTCACTTTAACTGGCCTTTACCCCTTT

Sequence 2969

CCCTTCGACGGCCGCCGGGCAGGTACTTGAGTCTCTTAACTCTGTAAAATCAAAACCTAA
AGAAAACAAAAAGATTATCCCTTGCATTGCAATACTGTTTAGTCAGTGTATATCAATTTT
TTTTACTGTATCACTGCATTGAGAGGTATCAAATTTTGCTTGCAGCGCTGTAAAAGTTT
ACCAGTCAGATTTGTGGGCCCGGCATGGTGGCTCACACCTGTAATCCAGCACTTTGAGA
GGCCAAGGCGGGAGGATTGCTTGAGGCTGAAAGTTTGAGACCAGCCTGGGCGACATGATG
AAACTCCATCTCTACTAAAAACAAAAAATTGGCCAGGCTTGGTGCCATGCACCCGTGGT

TABLE 1A

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CTCAGCTACTTGGGAGGTTGAGTGGGGAGGATCGTTTGAGCCCAGGAGATTGAGGCTTCA
GTGAG

Sequence 2970

CCCTTTGAGCGGCCCGCCCGGGCAGGTACTTGTGTTGTTTGAATGGTATTTTGAAAGCAA
TTGCATAGTTACTATTGATTCCTCAAAATGCATAATGGGGATGCTTCTGACCGACTTGCC
TTTTAGCAAGTTGAAGGTAGGTATGCACGACAGGGCTCTGACTTCACCAGAACTAATAAG
TTAGATTGCAATAGTAGGAGACAGATATAAATAATGAAGGAAGCTAGAGTTATGACGGCT
TTCTGGA AAAATGTTGGAATTGAAAGAAAATGTGGAAGAGAGTTGAGTGGAAGAAAGAC
TAATAGAGTAGGAGTATTAGTTTTATGAGAATGTGAGTAAATCTAATATTGGATAAATGA
ATCTAAGGCTACTAATACTACATTTTTGCAACTTACATTTTTGAGTATTTGGGTAGTAAA
TCACTCCGATAAAAAC TTTTAGAGTGGTTCACCTCTCAGTCACATATTTTGTGGTTTTAT
CTACATATACTTGGTTTTTAAGTCCAAAATATTGGTTGGATTTCTGGTATACCCTACNT
TTGTA AAAAGCATAAACTAGCATTTAAATTAATCNAATTAATTGCATGTTATTTTTTTT
TTTTAAAGCCATTTTCTGGNGATATATGGCTTTTGNAATTTTA

Sequence 2971

CCCTTAGCGGCCCGCCCGGGCAGGTACGTGTCTGTGGTCCCGACTACTGGGGAGGCCAAGG
TGGGAGAATTGCTTACGACCAGGAGTTTGAGTCCAGCCTGGGCAACATAGCAACACCCCA
TATCTTATTTAAAAAAAAGCACTCTATGTTTGTGTTTGGGCCTCTTTGAGAACATTTACTA
TGAAATTTTATTTATCTTTGTTTCCTTTCAGTTCCTCTTTGTTTATTGTGATTATCTTT
CATATAACAATGTGCTTAAATAGCTGGTGGTCTTGATAGGTCACTCAACAAGTGAGCAA
ACTGATGGATCCTGTGTTTTGTGAGCAGTGTTTATTGGCTGTGATAGAGGGTGGGGACCT
AGATGCTTTTAGGGGATCCTCCTGTTATCCATTTCTG

Sequence 2972

CCCTTTGAGCGGCCCGCCCGGGCAGGTACTGGAAGAATGAGATAATTTATTTGGCAAAAT
TCATATGTATATGTTATGCCAAACACTTGGCTAATATCTGGATGAGATGGGCAATTTACA
GACTATGTAATCACTAGGGTTCTATCTGTAGTTGTGTTATGAGAAACAATGGTTCATTA
ATTCACGGAAATGTGAATTA AAAATGTCATTAAGCGAAAGACTCTGTTAGCTTGAATTCC
TATTGGGATATGCAAGACACATAACATTTATGCATATTTGTGATGTTCTAATCCATTTTT
AGGGAATAGGATATTATATAAAGCACCTAGTTTAAACAAATACATGATTACGGTTGTCA
ATAGAGATAGATATAAATAGTGACCTGTGTAATTATTTGCTAATGCTGAAATTTTTTTT
CAGACAAGTGGATCCAAAATCTACCAATGATCTTGCAATTACATTAAGGGGAAAAGTATCT
CCTTAATGGGGAATCTTTACTTTTTTTTTTCCAAATTGTGCCTATCACATGATCTTATGG
ATAGATAATGGTTGGTATTCTGGTGGATTCTTATGNGCAAAAAAAGAGAACTTGATAC
ATTGGTTAGTTACATGCTCTCTTCTGNGCATCAAGCTTCAACTATCAAGATTTCTAAG
TGGCAAAAAGTTTGGGGGCTGNGTTATAGAAGTGGAATAAAATNTTACTGNACATCATT
CTTTAATTA AAATCCCN

Sequence 2973

CCCTTTGAGCGGCCCGCCCGGGCAGGTACAACAGCTTCCTAACTGGTGTCTCCCTTCCTC
TNAGCCNTGCTGTGCATCATTCTCGCACCTGCAGAGAGTTATGTCTTCACAATGCAATT
TTGGTGTTACCCCTTAACTTAAAAACTTCCAGTGCACCTTAGGACAAAATCCAATATTCTT
AAGCCCCCAAAGACTCTTCATGATCTGACCCTATCTTGCTTTCAACATTCATCCCTCCA
ATGTTCTCTCTCAGGTTCTAAGCTTTCACAAAATTGCTACATCTGCAAAGATTACTGCC
CCAGCCTTACTCCATCTTCTTACCTAAATCAATCTACTCAGTTTTCAATTCATTCTTGG
ATTAAACTTCAAGTTCTTTAGGGGAAGCCCTT

Sequence 2974

CCCTTTGAGCGGCCCGCCCGGGCAGGTACTGATCATTCAATGAGAGAATATGTCAAAAAA
TAGTTGGTGCATAGTAGATGCTCAAGAAATGTCAAATCTCCTGCCTTTTCACTTAGATT
CTTAAAGTATGAATGGTTTCATATCCTCATTGACAAAGTATTTCTCTGAAAAATTCTAA
GAATAAAAAATCCTACATCTCTGAATAATTACATTCATGACTCAGGGTGAATTAAGCTT
CACTTTCCTGGAAAGACGCAAAAGAACTTGAAGACAAAACAAGAAGCAGATCACAAG
ACATAAAGTATAGTG

TABLE 1A

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Sequence 2975

CCCTTAGCGTGGTCGCGGCCGAGGTACACACTTCTGTAACCTTAATATGTCATTTGGATAC
CTTTTCTCAAGAAGACTCAAATAAATAATTTTATTATGCCTTAAATATTACCAAGTCAGA
ATACTCACAGATGGATACTCTGTCCAAATGAGTATTTGTGATTGCGCATTTACACACACA
TATAATTTGTCATTGGTAATTTTGTTCAGAAATTATTGTGAGAAAATAAATTTTAAAG
AAAATACGATTCTATGAATACATTTTATATTTTACCTTTTCTGGCACATACTGTTGCAT
CAAACCTGATTAATTAATGTAATTATGTTAACTTCTCCAGTTAAAAAAGAGAATATACAC
TGCAAAGCTGAATGTGTATACTACTTGTGAA

Sequence 2976

CCCTTAGCGTGGTCGCGGCCGAGGTACTTAAAGAGCTCGTGGTGTGTGCCAGGAGTGTGT
TTTCCATGCATTCTTCTGAGAAGTAGGTTTGATTATACAGTATCTATTTTACAGATAAA
GGTTGAGGTCTTTTCTTTCTAAGGTGTTATTAGACAGCTATAGACATGGACACCAAACT
NGNCGAGCCTNCGGCATTGTAAAGGCTTGGCTTACCTTCCATCACCTCAGCAGTTCTGC
TGGAAGGGAAAAATGGAACAGGGCCCTTAATTTTTTCTCATTATTGGATTAATTGGAAG
CACTAGGCATGGTNTGCTT

Sequence 2977

CCCTTTGAGCGGCCGCCCGGGCAGGTACATTTAAAAGGTGATGCTAATACTTTAAATG
TTTAAGATATAGATTTAAAAAGCATTGTAAATTGTATACTGCAGTGTCTCTACATGGCA
TTGGACAGGACATAATGTAAACATAAAAGTGCAATTGTTACACTTACATATGATAGTGA
ATGGCAACGTGACCAATTTTGTCTCAAGTTAAAATACCAAAACTATTACAGTGTCTAC
TGGATTTATGTCTATATGACAAATCTTGATACTGCATCCACAACATTACTGGCGTGCTTT
TTGCTTTGCTTTTGTGTGCTTTTGTGTGCTGCTATTAATACGTCCGCTACTTTTGTCT
GTGTCTACATACACATCATTAACTATTGGTATTACTATTGTGGATAACAGCAGCCTCT
GCGTTTAGGTGTTTTATTGGATATATTGGATTTGNTTATATACCATTATTTT

Sequence 2978

CCCTTAGCGTGGTCGCGGCCGAGGTACATAACACATTTATGTGTCTATGTGTATATACTA
TTTATGTAAACATATAATATATGCAAAACATATATGCATATACACATACCGATATATGCA
AATCTGTATATAGAAAACTTAGTTTACTCAAGATTATTAATTTGATCCTGGGAACAAA
ACAATACACCTTTTCTAGGCATTTATCCCTACTATAGAGACAGAGAAAGAAAGATTGTGA
GAGGGAGACACACACATTGAGATGAGCCTTCAGGGAATTGTATGAACTTTTGAACCAGAG
ATGGAGAAGCCAGAGCCAGCCTGTTCCCACTTTAATAAACATTTTTTTCTTCAATTAAT
TAAGGTTTGGGAAAGAAAAAAACCCCCAGAAGAGAAAGTAATTTAACATGCCATGCAT
ACTTTACAGATGGATCCTCNCNGATGCCTATTAATCTATGCATGATTGCNCTGGAAA
AAATTAATTGCATTTGGTTCTCACTATTGGGAAAATAGGGTGCCAACAGCTCAAAAATAA
AAANGGAAAATGAAACCANGGTGGNTGNTGGTGTTA

Sequence 2979

ACGCGGGCTCCAATTTAATCTTTTAGTTGAATGAGCTTCTTCTCGCTTGTTACAGACT
CACTTAGGGCTCATTCTCCTGCCTTAGTCCCAGTATGGTCTCAGTAATGACATGCAGT
ATGGGGACTTTGGACTCCTGTTTGAACAAACCAGCTTTGAGATGATAAAAATTTGAATAT
GAATTGAGTTCTTGAAGATAAGAAATTGTTAATTTTGTGAGTTTGTAAATGGCATGGTA
GTTACTCTAAAAACAAATTTCTGGGCGAGTGTAGTGGCTCATGCCTGCAATCCTAGTACC
TCGGCCGCGACCAACCGCTAAGGGCGAATTCC

Sequence 2980

CCCGCGTCCGCTTTCTTATTTGGAAAGAAAACAACACTCACCACGGCATTACAAATGCTG
GGGACCTTATGAATGGGAATGGAGAGGCTGCACTAATGTAAGTGGGGTCAACATCCCTGC
TGGAGGGCAGATGCAAGTGGGGTCAACATCCCTGCTGGAGGGCAGATGCAATTTTGGCAA
ACTAATGACTTTTGGAAAGCCATTTTCTAGACTGCATTTTCTCTTCTTTCTTAGAATGCT
TTTCTCAAGGGGAAAAAGAAAGCAGAGGTGTAAATGGTATCTGGCCGTTGGAAGAGCCCG
TCTGGGAGACTCTCTGCTGACCACAGCACTGTCTCTCCCCAGGGCCAGTCCCACAGTGT
CACTGAGTCCAGAGTGGGACTCCAACAAGCCCTCCGCATTCCAGCATGACTGTGGTAAA
AACAAAAAAATCTATTTTATTCTAGTCCATCACATTTTCTATATTTGCTAAAGAAATCT

TABLE 1A

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CNATCACTCCATAAATGATCGGTTAAAAATNAAAAATATAGGCTGGGTACAGCAGCTTATG
CCCTGTAATCCCATGCTTTGGGACACTGAGGCTGGAAGATCACTTTGAGGCCANGAGTTC
NAGACCAGCCTGGGCAACATAAAAAAGACCCATNTTTTCCAAAATTAAAAATAATTNGCT
GGGGGGAGCCTAATTCCACTACTTGGGAAGCTGAAGGCTGGAGGATTGCTTGACCCTGGG
AGTGAGANGCTACANTGAGCTTTTATTGCCCCACTGCNCTTCANCTTTGGCCAACAAAAT
GANAACCCNTCCGTAAAAAATCNNCNCNNNTCAAAAANTTTTAAAAAAAAAAAAAAAAA

Sequence 2981

CCCTTAGCGTGGTCGCGGCCGAGGTACAATAATCGTTTTTGAATGATGGAGTAAATGGT
GGATTTTCATGCCTCAACTTGAATACACTCTCTGGTGGCTGAAACCGAGGAAGAATGTTGC
TCCAAAATATTAACGGGTGATAACTTGCTTTTCTATTTTAAAAATAGAAAAATTAATTCTC
CCATTCTCTTGATGGAAGAACCCTCAAACGGAAATTATTTTGTATTTAGTCACTATT
TAGTTATTATTTTTTCCAAAATTAAGGCTCATGCTCAGAAGCTATTTTTCTTAATATGTT
TGAGTTTTTAAAAATTGGAAAAATATCTCTCCACCAAGAATTTGGCAAAGAAAGCTA
GAATTAACACCGCAATAATAAATTTACAACACTATGAAAAG

Sequence 2982

CCCTTAGCGTGGTCGCGGCCGAGGTACACTNACAGCCCTGTCCTGAGCCTGTGTTAAAGC
CGGCACTCTATTTTTCTGGTGTCTATGTCAGCTGCTCACATGTCTGTCCCTCACTCCATGC
CCCACATCCCCTTGTTCCAGGGTCCGGCTCGCAGTCAGCACTTTTACCATGGGAATGCAT
GCCTTAGTTTAGCCACCTTCCCTGGGAAAAAGANCTGGATATACACACAACATACCCAT
GTCTCAATTGTCTGGTATGCAAGTGATATGACATATTTGTGTTAATAAATTTGNGNCTTA
TATGCATTTGTGTGCAGGCAGTCACTCAAACCTGGGACACTTTTGATCTAAATAAATACTA
AGGNGGATCCTTGACAATTGGCAAAGCCAGGACTGTCAGATAAATGGTCCCCTTGG

Sequence 2983

CCCTTAGCGTGGTCGCGGCCGAGGTACTAAAACTAGTAATGCAAAGGCAGCAATGTTAG
CAAAATTTAAAGAGTTATACCGGGGTGAGTTTTACAGAATTAGTAAGACCATTTAAAAGT
AATAAATCAACGTGTTGCGATTGGTGTATTGCTGCATTTGGACTTACACCCAGTATAGCT
GACAGTATAAAAACTATTACAACAATATTGTTTATTTTACACATTCAAAGTTTAGCA
TGTTTCATGGGGAATGGTTGTGTTACTATTAGTAAGATATAAATGTGGAAAAAATAGAGAA
ACAATTGAAAAATTGCTGTCTA

Sequence 2984

CCCTTTCGAGCGGCCGCCCGGGCAGGTACGCGGGGAGCGCGCCGGAAGAAAAACCAGCAA
GAAGGCGGCGGGGGAAGATGGCGGTCTGCGGGTAGAGTTTGCAAGCTTTCTGACTAGGCT
AGTCGAGCAACTATTGCGGTCATGGCGTCAAACCTCAACTAAGTCTTTCCTGGCAGATGCC
GGCTATGGCGAACAGGAACCTGGATGCCAACTCTGCCCTTATGGAATTGGACAAAGGCCTA
AGATCTGGCAAACCTTGGTGAACAGTGTGAAGCAGTTGTTGCTTTCCAGACTTTTTTCAG
AAGTATCCATTCCCTATTCTTATCAATTCTGCATTCTTAAAGTTAGCTGATATTTTCAGA
GTTGGAAATAATTTCTGAGGCTATGTGTTCTTAAAGTTACCCAACAAAGTGAGAAACAT
TTGGAGAAGATTCTAAATGTGGATGAATTTGNGAAGAGAATTTTTCTGGGATTCATAGT
AATGATCCTGTGGCAAGAGCCATCACCTCCGGAT

Sequence 2985

CCCTTTCGAGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTGGTGGACT
CAGGGTCTTACTCTGTCAACCAGGCTGGAGTGCAGTGGTGAATCTCAGTTTAAACCCCC
AAGTCTGTGGTATTTTGTATAGTCCCCCTGGAAATTAATACAGGATTCATGGTCTGCCA
AAGTCTCATTTCCCTGCTCANACCGACAATGGATAGTGGGATCCTTTGTGATATGTGCTCT
GTGAGTTANAAGTAGTAACCTTANAGCTGTTGAGGACAATACCTTTGCACCCCATCCACTG
AATTTTGTTTTCAAAGATACAGTCTGAAACTCCAGAGGGTGAGTGCCCTTTCAGTGTGT
CAGAGCCATTAGCGGCTGAGCAGACCGCTGAGCATGTANATTTCTAGGTCAGGGCCCTCT
CCCCAAAGAATCATACTCCCTGGTTGAACTGAACCTAAATCAGGTTTAAACTAGACAGA
TGCCAACCAACTTAAATTTCCAAAGATATNCAAGACCTGCCCATGGC

Sequence 2986

CCCTTAGCGTGGTCGCGGCCGAGGTACCAACAGCAGTGAACCAGGGCCTANTTGTGAGCA

TABLE 1A

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ACCAANACCTNTGCTGACCCANAAGCANACAGGTGACCCTTTCACCAAACTTCAATCAT
CAGTCTTCTCTTTTCTTTTTTGAACANAGTCTTGCTCTGTCGCCCATGCTGGAGTGCA
GTGGCGCGATCTCNACTCACTGCAAGCTCTGCCTTCCAAGTTCACGCCATTCTCCTGCCT
CAGCCTCCCGAGTAACTGGGACTACAGGCGCCCGCCACCATGCCCGGCTAATTTTTTGT
TTTTTCATANANACATGGTTTCACCATGTTAGCCATGATGGTCTCGATCTCCTGACCTCG
TGATCCACATGCCTTGGCCTCCCAAAGTGCTGGGATTACAGGTGTGAGCCACTGCGCCCG
GCTAGTTTTCTC

Sequence 2987

CCCTTTCGAGCGGCCCGCCCGGGCAGGTACATTTAAAAGGTGATGCTAATACTTTAAAACG
TTAAGATATAGATTTAAAAAGCATTGTAAATTGTATACTGCAGTGTCTGTCTACATGGCA
TTGGACAGGACATAATGTAAACATAAAAGTGCAATTGTTACACTTACATATGATAGTGA
ATGGCAACGTGACCAATTTTTGTCTCAAGTTAAAATACCAAACTATTACAGTGTCTAC
TGGATTTATGTCTATATGACAAATCTTGATACTGCATCCACAACATTATTGGCGTGCTTT
TTGCTTTGCTTTTGTGTGCTTTTGTGTGTCTGCCTATTAATACGTCCGCTGCTTTTGTCT
GTGTCTACATACACATCATTAACTATTGGTATTACTATTGTGGATAACAGCAGCCTCT
GCGTTTAGGTGTTTTATTGNATATATTGGATTTGNTTATATACCATTATTTTAATACAT
ACACATGCACGCTTTT

Sequence 2988

GGTACAAGAGTTGGAAAAACAGAGTTGAAAGGAAAAATGAGGATAATCTTATTTAAAAGA
TTATTGAATGCCTAAGTGCCTTTAATAACTCCACAAGGACCCTCATGTAAACAAAATTCA
GCAATAGCAACAAAAACAAAGCCTCTGAAATGCTCATTGTTCCCCAGTGAGATAAGCTTTA
AAGAGCANAAATACGAAAAACAAAACCAATNTCAAGTNAACTTAAAAATGTTACTTTA
TGGGAGAGGACAGGCAAGGCGGCAAGAACATAGAAGCAGTGCCACCTGAAGCTGGCATGA
TAAGGTTGATTTAACTGCACTGGAAGTGACAGAATCTGAAAGAACGACTTTTCAAATGTN
AGATAAATCCATTTCAAANNATNGTTAACTTGTGAATTCAACAGAAAACTGTAAACT
TTCNGNGGAGGCTGTTAAGAGCAAAATTGTTCCCTCAGAGCANAGGACTCATTGATGCCG
AAGATAGAGGAACATGGCCAACCCAATTAATAA

Sequence 2989

CCCTTAGCGTGGTTCGCGGCCGAGGTACAAAGAGAAGAACTCATGTCAATGGAAAGTCTGT
TTATCCTTAAAGCCAATTTGTAGACTAGACAGTTCCAAAATATCCCTTGGCAATCCCTT
TTGCAAAGTAATTGGAAAATGCTGTGCCAAGTGATAAAAAGCATTTCAGTTTCTGCCTA
ATGTCTGTTATAGTTTTCAAAGCCCTGAATTGCAAAACAAGATTAAACTAGTTCTGAAA
TAAACAACAAGTATTTACTGAAGAACAATATGAGGCACTCTGCTGGAACTTTGGGGATT
TGAAGATGTGTAAGACTGAGCTTACAATTTAGTTGGGAGATCAGACGTGTGCACAGCCA
AGGTTAAGCTCTAATACAGCATGAAAATATCTGAAATGTCAAAAACACCAGCAACTGTT
TCCATCTCANGGAGTGAGGCTACTATCCTCCAAAGGCAAGTCCTAGCCCCATCAAAA

Sequence 2990

CCCTTTCGAGCGGCCCGCCCGGGCAGGTACATATACATTATGTAATTAAGCGTGCATG
TGTATGTATTAATAAATGGTATATAAACAAATACAATATATACAATAAACACCTAAA
CGCAGAGGCTGCTGTTATCCACAATAGTAATACTAATAGTATTAATGATGTGTATGTAGA
CACAGACAAAAGCAGCGGACGTATTAATAGGCAGACACACAAAAGCACACAAAAGCAAAG
CAAAAAGCACGCCAGTAATGTTGTGGATGCAGTATCAAGATTTGTCATATAGACATAAAT
CCAGTAGACACTGTAATAGTTTTTGGTATTTAACTTGAGACAAAAATTGGTCACGTTGC
CATTCATATCATATGTAAGTGTAACAATTGCACCTTTATGTTTTACATTATGTCCTGTC
CAATGCCATGTAGACGACACTGCAGTATACAATTTACAATGCTTTTTAAATCTATATCTT
AAACATTTTAAAGGATTAGTATCACCTT

Sequence 2991

CCCTTTCGAGCGGCCCGCCCGGGCAGGTACCAGGACTGTCCTAGTGCGGGGAATAAAAGTG
AAATTATAGTCCTTCTCCTGAAGAAATCAGGGTCTAGTGGAAGGAAGGTGGGACCGGA
AGGAAGCTGGCCGGTGGAGCTTGCCCTGTGCTAAGCATTCCCTATCCACTTAACTGTGGG
TAATCGTCTGAAACTCCCTACAGACCTGGGAGTAAGCTATTGTATTGAAGGGGCTGTATG

TABLE 1A

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GAGTCAGGGAGAGAAGCCAGGCTTTANAGTCAGATGGCTCTAATCGTGCATCTCACCCCTC
TCTGTGTCCCCAAGCTCTCCCTCTGTAAGATGGGGACAATGACAGCACCCACC

Sequence 2992

CCCTTAGCGTGGTCGCGGCCGAGGTACATTGTATACTGCAGTGTCTACATGGCATTG
GACAGGACATAATGTAACACATAAAAGTGCAATTGTTACACTTACATATGATAGTGAATG
GCAACGTGACCAATTTTTGTCTCAAGTTAAATACCAAAAACATTACAGTGTCTACTGG
ATTTATGTCTATATGACAAATCTTGATACTGCATCCACAACATTATTGGCGTGCTTTTTG
CTTTGCTTTTGTGTGCTTTTGTGTGTCTGCCTATTAATACGTCCGCTGCTTTTGTCTGTG
TCTACATACACATCAT

Sequence 2993

CCCTTTGAGCGGCCGCCGGCAGGTACTTTTCTCCAAGTCAATGAATCCAATCTTTAA
TGGATCTGGGATGCTCTCTGACCAGGTCTGTTATGAGTTTCCTGTGTTATAATTAATAA
CCCCAACTGATTAAGCATGAGAGGATACTTCCTGCTCTCAGATAAATTATTTATTATAT
TCTGTATTATCCTTGTAATTTTTCTGGATATGAATAAATAACAATGTATCTCAGAAAAAC
ACATTTTGAAGCCTTATAAAGTTAAACTTTAAATGCTTTTCATCAAAATGTTATGAC
CAATAAAAATGCCATTATGTATCTCATCACACTTTCTATACATTTTGTAGTGATATGTA
TTTATACACTGCAGTTGGAATAGGGAATGCTTTTTTGGTTTCCACGGTAGGCTGCA
GGTTTTAAAGCAGAAGTCTGAACCTCTGAAGGCAACATAAGAAAAGTATTCAATTGAA
ACCTG

Sequence 2994

CCCTTAGCGTGGTCGCGGCCGAGGTACTTGTGTGGGTGTCTTACCTTGCATTAGAATATC
CTAGGCCTTTCTAATTCCTCTTGAATCCCTGTGTCACTCATCTGAGGTCATCTCTT
GGATTTAAATACATTTGGTCTGAAATCTCAAAGTCTGAATAAAATGCCATANTAAGTC
CAACTATATGGTTTCATGTAGGGTAAAGTAACCATTGTGGAAGGATTACGATAAACTGT
GTGACAATAAATAGAATAAAAGATGGCAAAACAATCTGTAAATTACAAAGTGTATAAAA
ATGCATTGAATTTCTAGTGTCTTACACTTTTCATATTTCTCATTGGCACATCAATCANAC
CTTGCCCTTCTAAAGTGGGAGGAAGAAAAAGGCTGCACCTGTCTGGGGCTGAAGGTCTGG
GCAGAAACACTAGCCAAAACCTTTTACTAAATCTTCATGTCAACCCCCCAAACCTNATTAGG
GGCCCCAACTTATTTCAATTATCTTCACTATCCCCAGGGTTTCCCTCTCCNTATTTTTTC
ATGCCCCACCTTTCAGCACTTTTCATGGTTNCTTNGTCTTTAAAAAACCCCAA

Sequence 2995

CCCTTCGGCCGCCCGGGCAGGTACATTTAAAGGTGATGCTAATACTTTAAATGTTTAA
GATATAGATTTAAAAAGCATTGTAAATTGTATACTGCAGTGTCTGCTGCATGGCATTGGA
CAGGACATAATGTAAACATAAAAGTGCAATTGTTACACTTACATATGATAGTGAATGGC
AACGTGACCAATTTTTGTCTCAAGTTAAAAATACCAAAAACATTACAGTGTCTACTGGAT
TTATGTCTATATGACAAATCTTGATACTGCATCCACAACATTACTGGCGTGCTTTTTGCT
TTGCTTTTGTGTGCTTTTGT

Sequence 2996

CCCTTAGCGTGGTCGCGGCCGAGGTACCATTTGGGATTATGGTTTTTAAAGCTTGAGAA
TATTACTTATTTACTTTTGCAGCTTTCATGCAGCTGTTTTTTTTCTCTCTGTTTTTGA
CTTTGGANATAAAGTACTGATTTTTATCTTTACTTTTCTCTTTATTTTGTGCCTTGGTC
TTGAAAAAGTAATAAATATTTCTTACTGAGGCCCTCCTGCTTTGTTCTGCCATCTAAG
GTGATTACAATGCTCAAGTCTCTTTGTTGGTTGCCCTTGACTAATGCTTTTCAGCAGCCC
CGGGCTCAGCTCCTGGTTCCAGTATGGCACAATGACCAGGCAGATATCTCGACACAAC
CTACTACTTCTTCGACATCTTCTGGTGGATACAGACAACTCCCTCTGTGACTGCTCAAT
TTTCTGCTCAGCCTCATGTTAATGGGAGGTCCACTTTATTCTCAAAATTCAAGTAAGCTT
GTGCTTTTGCAGGCATACAGCAACAGGGGGAGCTCCTTTTGAAGGAAATTTTGAAGT
GGTTTTTCTTGCCAGGGGATAGACAACCAATTGAAAAACCATGAAGGNTNCAAGGGTTAT
TTTTGGGTTTTANGAAATTAAGNCCCTTGAAATCATACCNATTTTTAAANANGTAATTGN
TTTACCACCTTTTTNTTCCCA

Sequence 2997

TABLE 1A

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CCCTTTCGAGCGGCCGCCCGGGCAGGTACATGTTCTTCCCTTACTTTGGGGAGTCTAGG
TTGTGAATTTGAAACAAAATCAGATTCTTTTCATCTTCCCTTTCCCCTCAAATTCCTGAG
AAAACCTCCAACCTTCTAAATTTATAGCAAATCAACTATAATTATGTGTTTCCATTTGAA
ATTCAAGCTAAAATAACATACTTTAAAAAGTGTATCTTAAAAATCATATTTTCGCTTCAAA
AAAACCTTGTTAAAAGTAATTTGCATCAGATCCTGGAGTCGACTTGAAGAATTCTCCTACA
TCTGACACCCAGTTAGGCCCTTTGAGAAAGAGAGAAAAAGAGAATTTTTTAATGCATGTTT
GATTATGGCCATCTCTTTTCTTAGAAGGTAGAAGATAGCACCATGCCGATTTCGTGCGAACT
GTGAATTCTACCCGGGAAACTCC

Sequence 2998

CCCTTAGCGTGGTCGCGGCCGAGGTACATTTAAAAGGTGATGCTAATACTTTAAAATGTT
TAAGATATAGATTTAAAAGCATTGTAAATTGTATACTGCAGTGTGCTCTACATGGCATT
GGACAGGACATAATGTAAACATAAAAGTGCAATTGTTACACTTACATATGATAGTGAAT
GGCAACGTGACCAATTTTTGTCTCAAGTTAAAATACCAAAAACTATTACAGTGTCTACTG
GATTTATGTCTATATGACAAATCTTGATACTGCATCCACAACATTATTGGCGTGCTTTT
GCTTTGCTTTTGTGTGCTTTTGTG

Sequence 2999

ACATCTGCACATTGTGCAGGTTAGTTACATATGTATACATGTGCCATGCTGGTGCACTGC
ACCCACTAAATCGTCATCTAGAAGTGTTTTCTAATTTTATTTGTAATTTCTTCTTTGTTT
CATTGGCTGTTGAAGAATGTGTTGTTTGGCCGAGCACAGTGGCCACGCCTGTGATCCCA
GCACTTTGGGAGGCCGAGGCAGGTGGATCACGAGGTCAGGAGATCCCCGCGTACATCTAT
TTAAAAGTCAATACACAGGAAAAAGGTCTGGAAGAATATATACTAGAAAAGAATGGTTAC
CTCTAGGGGATGGAGTGTCAAGGTGAATTTTGGTTTATTCATACTGTCTAAATGATTGCT
TAATAACTCAGGTATTGCTTTCAAAAAGTAAGAGGAAGGGTGGGAAATACCCTGTTCTCT
CANAATTTTAAGTCCAGAGTGCTGGGGAGAAAAANATGGCAGCACTTGANCGGGACTGAA
AAAGT

Sequence 3000

CCCTTAGCGTGGTCGCGGCCGAGGTACGCGGGTAGGAGCAGGAGGAGCAGTGGGGGAAGC
TGGTATTATTTATACCACTCTTTGTATTTTATCACTTTTTATAAGTCTGAAATTATTTCA
AAATGAAAATGTAAAAGAACAAGGAGTTTCTCACTATTCTTTGTCCCCCTAAAAAGACC
ATCTTTTTAAAAAGATTAAGGAATTCATACAAAATAAGTAAGAATTAACAATTATAGGAA
GTTTGGGCCAAGCACAGTGGCTCATGCCTGTAATCCCAGCGCTTTGGGAAGCTGAGGTGG
GTGGATTGCTTGGGCCTAAGAGTTCAAGACTANCCCTGGTAACAGCGAGGACCCTTGTCT
CTACAAAAAATAAAAAATACTAAC

Sequence 3001

CCCTTAGCGTGGTCGCGGCCGAGGTACAGATGGGGTTTTCACTGTGTTAGCCAGGATGGTC
TTGATCTCCTGACCTCGTGATCTGCCCGCCTCGGTCTCCCAAAGTGCTGCGATTACAGGC
GTGAGCCACTGTGCCCAGGCCTATTGGGGGTTATGCAGGTTCTTTGCTTGGCCATGGTA
GATGGCTAAGTCTTTGCTTCCAAGTTCTTTGACCATGAGACATGTAGAGCCAGGGAGGA
AAGAGAAAACCCAAACCAGGTCACTGTTACCTGTGAATAACATCTTGATCGAGTTCTGAG
A

Sequence 3002

CCCTTTCGAGCGGCCGCCCGGGCAGGTACATTTTCATATTCTCCACCTTTGTTCTTGCC
CTTTGCCTTCAAAGATATGTAGATGTTCTTAACTCCAAAAATTATAAAAAACAAACAAAA
AAACTTTACCACTGTTTATTATCAAAGTTACTATTCTTTATCCATTCAATATTTAGAGT
AGCTAACAAAGACAAAACAAAATAATTGCTGCTTTCGTGGCTTATAGTGGGGAAGGGTGAT
AAACACCATGATGAAGGAGAGAAGAGTGCTATTGTGGGGGCACAAATTATGGGGATCTGA
TCCTTTTTTTTAAGGGAGGCAT

Sequence 3003

CCCTTTCGAGCGGCCGCCCGGGCAGGTACATTTAAAAGGTGATGCTAATACTTTAAAATG
TTTAAGATATAGATTTAAAAGCATTGTAAATTGTATACTGCAGTGTGCTCTACATGGCA
TTGGACAGGACATAATGTAAACATAAAAGTGCAATTGTTACACTTACATATGATAGTGA

TABLE 1A
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ATGGCAACGTGACCAATTTTTGTCTCAAGTTAAAATACCAAAAACTATTACAGTGTCTAC
TGGATTTATGTCTATATGACAAATCTTGATACTGCATCCACAACATTACTGGCGTGCTTT
TTGCTTTGCTTTTGTGTGC

Sequence 3004

CCCTTAGCGTGGTCGCGGCCGAGGTACCATGTTCTAAAGGCAATCGAGTCATAATACACT
GAAAGCAGTCCAAGAGCAGCAAGAGACTTTGCTGCAGCTGTAGATCACTGGATCGGTAAC
TCGTAGTTAAAGGAAATCCCTACCCACTCCCATCCAGCCCCTACCCCCTAATTATGGGAC
AAAATAGCCAATTCATGAGATTTAAACAGGAAGTTCACAAGAGGAACTCTTATACCTAT
GAGGACCCATTAACCAGGGATTCCACAACCAGTAGAATATTATCTACTGGTAGCTATTTA
AGCCTTACCTGACAGGTCTCCAAGCCAGCCGAGCAGCCACATCCCTCTCTGCGCCATAA
ACGTCTCGCCTCAGTTTCTGAAATCCCAACTGAGAANGGAATATAGCCAGCAGGCACT
CCCAACCCCTGTTATGATTCTACAGTTCTACTGTTAGTAAATTTCCAGGGGCATCACAAT
CTGTGTCCTTACACATGCATACACAGAGGAGCTTCCTTTTANGGATGAGCTCCTCATT
CAGGGC

Sequence 3005

CCCTTAGCGTGGTCGCGGCCGAGGTACTAAGTCTATCGCCATGCTGTGTACGTGGGCAG
GTCTTCTTGGCATTTCATCTTGAACATGACCCAAATCCTGGCTCCATCTTCCCTCTTACTT
TTCCCTTGCCCCATTTTTCTTCTTATTTTTATGTATGTTTACCTTGCCCTGTAGGCGC
ATTTGTAAGCTGGCTCAAATCCTTTTGGGAACAAGGTGGGTTATAAATGCACACGTTCTT
ACACAGGATGTTGTTAGTCATTTTATAAGGTCTCTTGTGGAGGAGATTAGCCAATAGCTT
CTTTTGTAACCTTAGGCA

Sequence 3006

CCCTTAGCGTGGTCGTGGCCGAGGTACAAAACACATTTGGTCCTGAGATTTTTTCAGAAGC
AATTTAAGTGTAATAGGAATCCTCAGAAGGAAGAAAGTAAACATGTTCTGAGCAACTCC
TCCTCCAGGCACTACAATAAAGAGAAGGGAAGTGGACCTGGAAAGACAGACAGTCCATA
GAGAAGTGAGAGGGAAGAGGAAGAGAGCATGCTGCTTAATGCAGGTTGACATTTCTGTT
TGTAAGCTAATTAATTCAGAAGGATTAATACTTAATACTTTACCGTCTGTATGTAT
GTATGATTTTATTTATATTTTTTTGAGATGGAGTCTCACTCTGTCACCCANGCTGG
AGTGCAAAGGCCCAATCTTGGCTCACTGCAACCTCCACCTTCCAGGTTCAAGCGATTCTT
CTGACTCACCTCCAAGTAGCTGGGATTACAGGCACACACCACCATGCNGAGCTAATTTTT
TGNATTTTTANTAAAANACANGGGTTCCCCGNTACCCGGATGGGCTCAATCTCCTGACC
TCNNGATCTGGCTGTNTCGGGCCTCCCAANTGCTTGGATANAGGCGTGAGCCCTGGGCC
CCACTTATACCCTTNATAANTAAATATTTAATCCCCAAGNTTTAAATTTTNTTATCCCT
TGTCGGGGTAAACCTTTCCNAAAAAGG

Sequence 3007

CCCTTAGCGTGGTCGCGGCCGAGGTACATGATTCTACACTGAATCTGCATTTCACTCCCA
TATCTATACCAGAAGGTTATCAGTGGAAGAGAAATTCAGTTATCTTGAATGGACATGATC
TTCTCAGGAGCAGTCAGTGGTTAATTGGGACAAGAAAACACAAGTCATTATCATTGAGAA
ATCTGAAGCAAATTGAGGCAGGTTGTCACTTTTACCAGGAAACAAATTAGCCCTGTCTT
TAAAAAGACTTCTTTCTCTCTCTGCTGACTGGGGATTCTGTCAACTGCCAATGAAATAG
GGAGAGTGTAGATTAATGGC

Sequence 3008

CCCTTAGCGTGGTCGCGGCCGAGGTACTAACCATATGAAAATAGTTGCTACCTTGTTGGA
CAGGACAGATATACAAAGCATTTCCATTTTTACAGAAAATGTGTATGGATACCATGGAGG
TTTGAAATAAATGCTGAGTTCATTCAAACATAGTGAAATACAGCATGTGAAAAAGTAAT
TACTTATTGACTATAATAAATGCTTCATAAAATATAATAGATGCTGATTCTGGCCAAGAT
TGACAAAATCTAATGCAGCCTACATGTCTCAGTGGTTAATACTAAGACTCTGAATAAAAT
ACAAGCAAATAACA

Sequence 3009

CCCTTAGCGTGGTCGCGGCCGAGGTACCTTTGCCAGTTTCTGGCATATTAACAGCTGAGA
TCAGATAAGTGAACAGCGATAGAGGTAGTGAGGTTTAGGATTCAGGTCTGCCACCGGGAG